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GAZETTE

If you receive more than one copy of this glorious *Gazette*, then you are truly a computer fanatic (oh joy!). Please pass the extra copy on to a friend, professional associate, or fellow amateur.

3rd West Coast Computer Faire
to be held in the
Los Angeles Convention Center
November 3, 4, 5 1978
9am-6pm 9am-6pm Noon-5pm
(Friday through Sunday)

Volume 3, Number 1

Computer Faire, Box 1579, Palo Alto CA 94302; (415) 851-7075

78Aug25

LAST MINUTE LAST CALL FOR 3rd COMPUTER FAIRE SPEAKERS

Give a talk about your pet project, dandy device, scintillating software, adventurous application, or booming business at the Third West Coast Computer Faire. Approximately 60 people have already proposed to give talks or organize Sessions pertaining to some specific topic. If you hurry, you too, can be a part of the excitement, and contribute your expertise to the advancement of the explosively growing area of low-cost computing in homes, business, and industry.

The following is a random sampling of a few of the topics or titles of talks that have been proposed (many more will come in as the deadline approaches; and probably, some of these proposed talks will not be finished by the deadline -- however, this list gives you some idea of what's happening):

Exotic Games and Complex Situations
Computer Game Playing
Linear Programming and Game Theory
Computer System for Model Railroad
Computer-Controlled Light Display
Computer as Classroom Teacher's Aid
Running a Literacy Course
Software to Supplement Skills in the Classroom
High School Algebra Course for Microcomputers
Microcomputers Throughout the School
Personal Computers for Learning Environments
Braille Communications
Pattern Recognition for the Mentally Impaired
Alpha Micro Users Group Meeting
Report on Microcomputers
Micro PASCAL--Portable Compiler
MicroProcessor-Based Industrial Controllers
Business Microcomputers -- Fraud or Reality?
Design Philosophy of S-100 bus-compatible 6800 CPU
8085 ICE Module
The Ultimate Debugger
Introduction for the Novice (Programmable Calculators)
Better than BASIC--PASCAL
Associative Memories and their Applications
Everybody Write Your Own Computer Publication
Income Tax Program
Employment in the Computer Industry
Personal Computer Consultants
How to Do Your Own Marketing Survey
Financing the New Business
Business Startup basics
Management and the Age of Change
Data Processing -- Business Within a Business
Computer Technology -- Adversary of Business

Each one of the two previous Computer Faires included about 100 speakers and panelists. The L.A. Faire is expected to be comparable in magnitude.

(For a complete list of topics presented at the First and Second Computer Faires, see the Tables of Contents of the *Conference Proceedings* published for those Faires, listed elsewhere in this issue of the *Gazette*. This will also give you additional ideas of the depth and breadth of topics that are appropriate for presentation at

continued on back page



The Los Angeles Convention Center

DIGICAST PROJECT TO INITIATE DIGITAL BROADCASTING SYSTEM FOR THE GENERAL PUBLIC -- AN "ELECTRONIC NEWSPAPER"

The Digicasttm Project is planning on implementing a broadcast-based news & information distribution facility, hopefully operational by early 1979 in one or several areas of the U.S. This system plans to transmit digitally-encoded alphanumeric information (and probably computer programs, as well) using some of the subcarriers that are inherent in every FM transmission.

BETTER THAN NEWSPAPERS

This project falls in the general category often called "electronics newspaper." It is comparable to traditional newspapers in much of the planned content -- international, national, regional, and local news; want ads, theatre schedules, real estate listing, stock and commodities quotes, sports data and schedules, etc. It is also comparable in its unidirectional distribution and in its mass distribution. However, it is a considerable improvement over newspaper in its technology:

It does *not* require cutting down forests, to make paper, to put ink on, to distribute via energy-consuming vehicles.... in order to distribute the news a day or more late. Digicasting does not produce a waste-paper

continued on inside of back page

Motion Picture & Theatre Production People:

HOW 'BOUT A CONFERENCE SESSION ON THEATRE AUTOMATION?

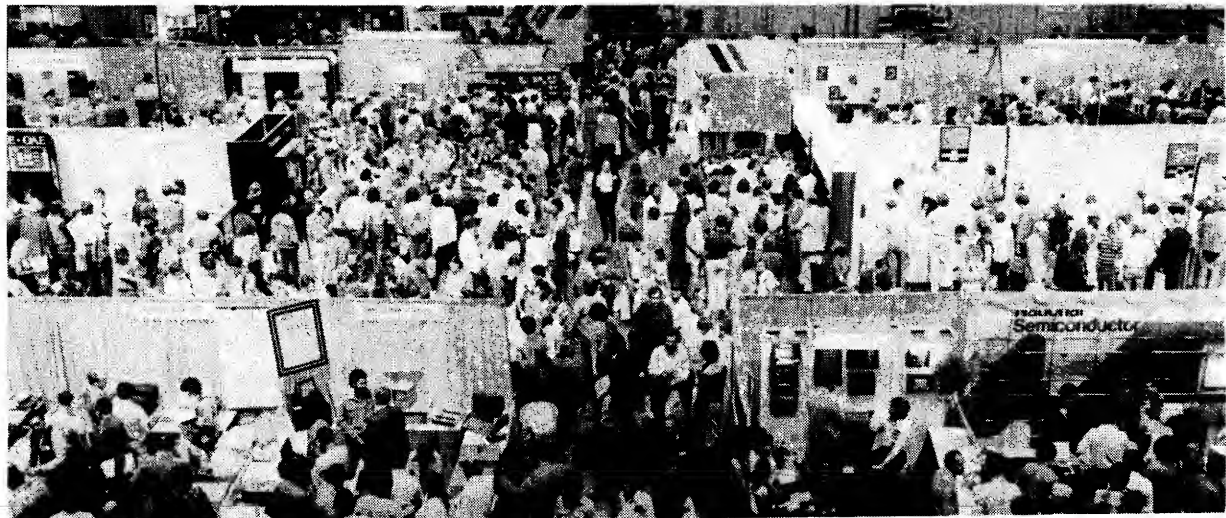
Someone recently made the following suggestion to one of the Computer Faire organizers:

Since the 3rd Computer Faire will be held in Los Angeles, it would be an ideal time and location for a major Conference program addressing the topic of use of computers and digital electronics in theatre and motion picture production.

Everyone interested in giving a talk or demonstration in this area should contact the Computer Faire immediately. Anyone interested in assisting in organizing such a program should contact the Computer Faire even sooner.

TAPES AVAILABLE OF 2nd FAIRE'S PANEL ON FUTURE DEVELOPMENTS

The panel on "Future Developments in Personal Computing" at the Second West Coast Computer Faire was filled to overflowing with people interested in hearing the predictions of panel members Adam Osborne, Dick Heiser, Portia Isaacson, John French, and Ted Nelson. Tapes of the session are now available from The Computer Store, 820 Broadway, Santa Monica, CA 90401, (213)451-0713. The cost for two 60-minute cassettes in a plastic binder is \$9.95, plus \$1 for shipping (plus California sales tax if you live in California). C.O.D. is \$0.85 extra.



Group shot of some loners at a previous Computer Faire

33% LOWER FEES
FOR 3rd COMPUTER FAIRE

The registration fee for the Third West Coast Computer Faire -- covering admission to all exhibits and the Faire Conference Program for all three days of the November 3-5 Computer Faire-- will be \$6. This is a significant reduction from the registration charge of \$8-\$9 for the First and Second Faires.

This reduction was the Faire's response to the maturing of the low-cost computer marketplace, and to feedback from attendees at previous Faires and from exhibitors. In the beginning, when the industry was struggling through its infancy, it was appropriate to equally distribute the costs of a Computer Faire between the struggling companies and the struggling consumers. Now, however, the marketplace has matured, and the companies deriving the profit from that marketplace are better able to carry a larger portion of the financial burden of conducting such major conferences and expositions that are of explicit benefit to them. In fact, several of the companies have pointed this out, and proposed that registration fees be reduced, understanding that their exhibition fees would be somewhat increased.

Registration forms and badges will be available at the L.A. Convention Center for \$6, throughout show hours, Friday through Sunday, November 3-5. They will also be available through many retail computer stores and electronics distributors, allowing attendees to obtain their admission badges early and just walk right in -- dodging the registration lines on-site, during the Faire show days. Contact your local computer or electronics store for further information. The next issue of the *Gazette* will carry a listing of many of the stores offering such preregistrations.

FAIRE ADMISSION BADGES TO BE
AVAILABLE THROUGH COMPUTER
STORES & ELECTRONICS RETAILERS

Those planning on attending the 3rd Computer Faire, being held in the Los Angeles Convention Center November 3-5, will be able to obtain preregistration forms and admission badges, purchasing them through most of the local computer retailers and electronics distributors. The registration fee will be \$6 and will be good for all three days of the Faire. This is the same fee as will be charged at the Convention Center during the convention.

The advantage of obtaining admission badges in advance is that such plan-aheaders will be able to waltz right past those who are standing in registration lines at the Faire. It also gives the opportunity to look around the local computer store -- often a fascinating adventure for those addicted to technological goodies.

The next issue of the *Gazette* will list the names and addresses of many of the retailers carrying Faire prereg materials and badges. In the meantime, contact your local retailer for details.

JADE

* SHOW SPECIALS *

MICROPROCESSORS

F8	16.95
Z80	20.00
Z80 A	25.00
1802	17.95
2650	19.95
AM2901	20.00
6502	11.95
6800	16.95
6802	24.95
8008-1	12.95
8035	20.00
8080 A	9.95
8085	23.00
8748	60.00
TMS9900	50.00

8080 A

SUPPORT DEVICES

8212	3.90
8214	4.60
8216	2.75
8224	4.00
8224-4	9.95
8226	2.75
8228	6.40
8238	6.40
8251	7.50
8253	20.00
8255	6.35
8257	19.95
8259	19.95
8275	75.00
8279	18.50

6800 SUPPORT

6810P	4.00
68B10P	6.00
6820P	6.50
6821P	6.50
6828P	11.25
6834P	16.95
6850P	8.75
6852P	11.00
6860P	9.00
6862P	12.00
6871P	28.00
6875P	8.75
6880	2.50

CHARACTER GEN.

2513 U/L	6.75
2513(5v) U/C	9.75
2513(5v) L/C	10.95
6571	10.95
6571A	10.95
6574	13.25

DYNAMIC RAMS

416 D (200ns)	16.00
4116 (200ns)	16.00
2104/4096	4.00
2107B-4	3.95
TMS4027	4.00
TMS4050	4.00
TMS4060	4.50
4096	4.00
MM5270	4.50

PROMS

1702A	5.00
2516(5v)	38.00
2708	9.00
2716 (TI)	24.95
2716 (INTEL)	38.00
2758	23.25

STATIC RAMS

1-63	64 up
21L02 (45ns)	1.50 1.18
21L02 (250ns)	1.75 1.50
410D	10.00 8.50
2101-1	2.95 2.50
2102	1.25 .90
2111-1	3.25 2.65
2112-1	2.75 2.35
2114 (300ns)	10.00 8.25
2114 (450ns)	9.00 7.69
2125L	7.69 6.60
TMS4044 (250ns)	9.95 8.00
TMS4044 (450ns)	8.95 7.40
4200A	10.00 8.60
TMS4045 (250ns)	10.50 9.00
TMS4045 (450ns)	9.00 8.00

FLOPPY DISC CHIPS

1771B-01	39.95
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KEYBOARD ENCODERS

AY-5-2376	13.75
AY-5-3600	13.75



EXPANDO-32 KIT

Uses 4115 (8Kx1) Dynamic RAMs. It can be expanded in 8K increments up to 32K

8K	\$179.00
16K	\$255.00
24K	\$325.00
32K	\$399.00

EXPANDO-64 KIT

Uses 4116 (16Kx1) Dynamic RAMs. It can be expanded in 16K increments up to 64K

16K	\$260.00
32K	\$579.00
48K	\$757.00
64K	\$925.00

APPLE II

One of the best "Total Package" home and business computers on the market. "Basic" in ROM, Color Graphics, Floating Point Basic Package, etc.

16K version only \$1,095

4116 [16Kx1-200NS] MEMORY EXPANSION KIT

Dynamic Ram Chip can be used for expanding Apple II Memory or the TRS-80 (200ns)

8 for \$128.00

CONTAINS INSTRUCTIONS

HITACHI

BLACK & WHITE
VIDEO MONITORS



VM-909

9" Solid State Video Monitor
500 lines horizontal resolution
line lock sync
High voltage 10KV

215.00

VM-129

12" Solid State Video Monitor
700 lines horizontal resolution
Includes black level clamping, DC restoration circuit (switchable). Ext sync provision (Optional)

370.00

JADE

Computer Products

10% off these prices at show

The Piggy is coming!

JADE Z80

with PROVISIONS for ONBOARD 2708 and POWER ON JUMP

(2MHZ)	\$135.00ea.
Assembled & Tested	\$185.00ea.
(4MHZ)	\$149.95ea.
Assembled & Tested	\$199.95ea.
Bare Board	\$35.00ea.

E-PROM BOARDS

MR-8 (8K uses 2708) KIT	\$99.50
with 1K RAM	
MR-16T (16K uses 2716) KIT	\$99.50
with 1K RAM	
EPM-1 (uses up to 4K of 1702)	\$59.95
RAM/N/ROM (16K uses any E-PROM) KIT	\$117.00
JG-8/16 (uses 2708 or 2716) KIT	\$59.95
BARE BOARD	\$30.00

EXPANDABLE E-PROM - S.D. Computer Products
16K or 32K EPROM \$99.95 without EPROM

Allows you to use either 2708's for 16K of Eprom or 2716's for 32K of EPROM.

SHUGART 801R

8" FLOPPY DISC DRIVE.

\$495.00



MODEL 801R Shugart Disc with Cabinet

Includes Cabinet, Disc Drive, Power Supply, Cable, Fan & Data Cable. Has AC line filter. Cabinet size 10"H x 10"W x 16"D
MODEL DM 2700-S \$750.00

FLOPPY DISC INTERFACE

JADE Floppy Disc (Tarbell Board) KIT \$175.00 ea.

S.D. Computer Products
Versa Floppy Kit \$159.00ea.
Assembled & Tested \$189.00 ea.

JADE PARALLEL/SERIAL INTERFACE KIT

KIT \$124.95
Assembled & Tested \$174.95

S-100
2 Serial interfaces with RS232C interfaces or 1 Kansas City cassette interface.
Serial interfaces are crystal controlled
Selectable baud rates.
Cassette works up to 1200 baud.
1 parallel port.

MOTHER BOARDS - S100 STYLE

9 slot "Little Mother"	\$35.00
Assembled and Tested	\$85.00
13 slot with front panel slot	
Bare board	\$40.00
Kit	\$95.00
Assembled & Tested	\$110.00
22 slot Assembled & Tested	\$149.95

SILICON GULCH GAZETTE

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COMPUTER FAIRE
Box 1579
Palo Alto CA 94302
(415) 851-7075

Editor: Jim Warren

Raving roving Despondent: Señor "Butch" von Grabowsky

Uninvited Guest Reviewer: Chas. R. Miller

Advertising Manager: Marguerite Brosing

Subscriptions: Faun Jackson

Sanity Maintenance: Lygia Brosing

Staff Writer: Bill Baumann

Typesetting: Erna Foti, Itinerant Gypsy

Layout: Lynn Koeberle, fastest "draw" in the West

COMPUTER & ELECTRONICS CLUBS
& ASSOCIATIONS MAY PURCHASE
BLOCKS OF FAIRE PREREG BADGES
AT A 16% DISCOUNT

Computer clubs and computer and electronics professional associations -- e.g., ACM and IEEE Chapters -- may purchase blocks of Computer Faire preregistration forms and admission badges at a delightfully deflationary discount. The retail fees and fees at the door will be \$6, providing registration for all three days of the Faire. Clubs and associations may purchase a block of 20 for \$100 -- \$5 each. The organizations can either use these to raise funds for the organization -- purchasing them at \$100 and selling them for \$120 -- or, they can pass the savings along to their club members.

Organizations may purchase as many blocks of 20 as they wish. Such purchases must be prepaid (with the Faire paying shipping charges), or may be shipped C.O.D., with the organization paying the C.O.D. and shipping charges. If the organization ends up with undistributed registrations, up to 20% of the quantity they ordered may be turned in to the Computer Faire up to November 2nd -- the *day before* the first show day -- for a full refund (\$5 each for up to 20% of the blocks purchased). Forms and badges will be available for shipment on or before October 1st, five weeks prior to the Faire.

Organizations or organization members interested in details of this arrangement should contact the Computer Faire, Box 1579, Palo Alto CA 94302, (415)851-7075, as soon as possible.

About Non-computer Consumer Technology

POLICY CENTER ESTIMATES 3
MILLION NEW JOBS AVAILABLE
IN SOLAR INDUSTRY

The California Public Policy Center (CPPC) has announced the availability of a study entitled "Jobs From the Sun." The study examines employment development in the California Solar Energy Industry.

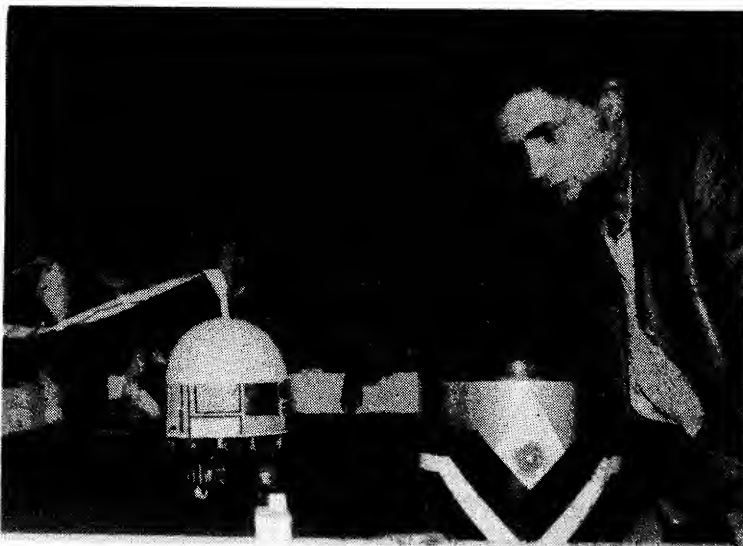
The CPPC claims that the study, based on responses to a CPPC survey by 45% of California's solar firms, shows that almost 377,000 new jobs could be created yearly for a 10 year period. They state that over 27,000 of these jobs could be in manufacturing and more than 82,000 in construction, two job areas that CPPC considers of greatest "structural weakness" in California employment. They further claim that job estimates in the study are conservative. "Study estimates use a low 2.2 employment multiplier, and do not include job potentials from solar electricity, wind power, solid waste conversion, and other feasible renewal technologies."

As well as more jobs, the CPPC claims that the study findings indicate the possibility of a \$41.2 billion increase in personal income, \$51.1 billion increase in Gross State Product, a \$19.8 billion tax savings, and savings of \$10.2 billion in exported capital.

The basic conclusion of the study appears to be that "Solar means more jobs and industrial growth than nuclear, Liquid Natural Gas (LNG), or other fossil fuels." Included in the study are basic data and a methodology for calculating the economic impact of solar for any state, region, or the entire nation. The announcement of the publication of the study states that it is fully documented, with 120 pages, 28 tables, and 47 references. They also state that the study shows "democratic, decentralized industrial development can offer real solutions to unemployment and inflation." Copies of "Jobs From the Sun" are \$10 for libraries and institutions, and \$5 for individuals and public interest groups. For more information contact: Solar Jobs, 304 S. Broadway No. 224, Los Angeles CA, 90013.

MODEL RECALLED

I have a very standard face. They produced a number of them before they recalled the model.
Paul Baran, President, Cabledata



Robot "turtles" at the 2nd Computer Faire

SURPLUS EQUIPMENT FOR SALE
LIKE NEW!

ITEM	PRICE
HORIZON I 32K	\$1999
2PARALLEL I/O 2SERIAL I/O	
HORIZON II 32K	\$2159
2PARALLEL I/O 2SERIAL I/O	
SOROC 120 CRT	\$ 699
CENTRONIC PRINTER	
CABLES	\$ 19
RS 232-C 12' CABLES	\$ 29
D.C. HAYES COMM.	
BOARDS	\$ 229
PRINTER - COMPUTER	
STAND	\$ 75
TERMS-C.O.D./F.O.B. CAMPBELL	
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(408) 374-2988	



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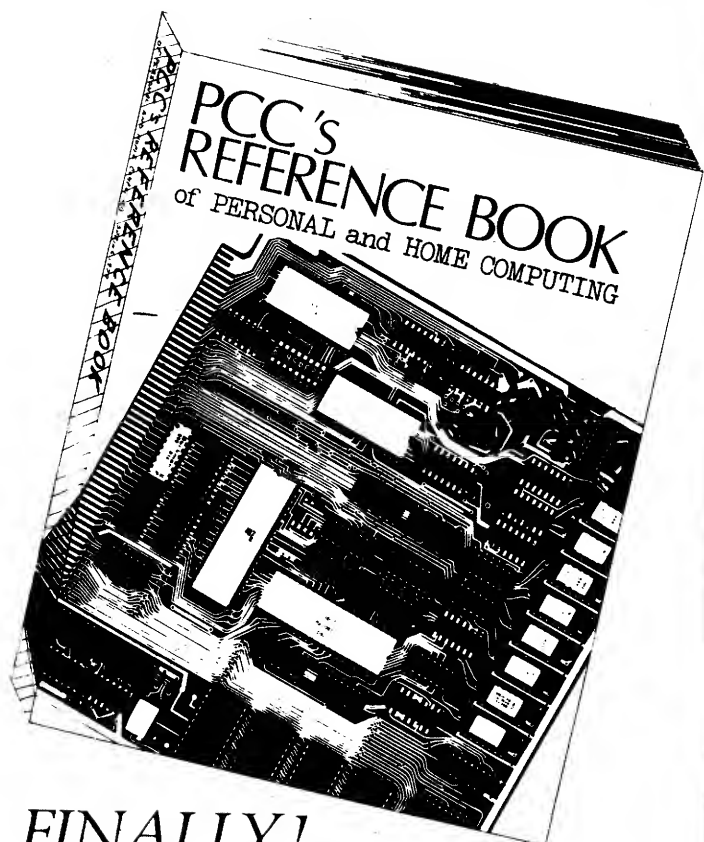
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7F98



FINALLY! A REFERENCE BOOK for Home Computer Users!

Ever try to find the address of, say, a particular manufacturer when you don't even know where they are? Looking for an article on a certain kind of hardware? Frustrating, isn't it? We know, because we've been frustrated by it too, so we decided to do something about it. *PCC's Reference Book* includes:

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- ★ A massive index of the articles from the major hobbyist magazines, plus information on magazines in the field, hobbyist clubs, newsletters and professional societies.
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You'll wonder how you ever got by without it.

Please send me *PCC's Reference Book*. My \$5.95 plus 95¢ for shipping and handling in the U.S. is enclosed. (In California add 35¢ for sales tax).

NAME _____

ADDRESS _____

Send to: Dept X, 1263 El Camino, Box E, Menlo Pk. CA 94025

THERE'S MORE THAN ONE JIM WARREN

There's a Jim Warren who is the Chair-victim of the Computer Faire. There's a Jim C. Warren, Jr. who used to be the Editor of *Dr. Dobb's Journal of Computer Calisthenics & Orthodontia*, and remains its haphazard Editorial Advisor. The same name is listed as the Director of the Digicast Project -- a digital broadcasting information utility for the general public. It is also listed as the Editor & Publisher of the new biweekly newspaper, the *Intelligent Machines Journal*. They/we/he is/are all the same person (scizzy?).

Then there's a Jim Warren listed with AA Financial Corporation of Portland, a company peddling a "rating machine" based on a North Star Horizon system. He's *not* the same as the one in the preceding paragraph.

FAST-TURNAROUND NEWSPAPER CREATED ADDRESSING LOW-COST COMPUTING COMMUNITY

The *Intelligent Machines Journal* is being started to serve the explosively growing community of people interested in low-cost computing power in home, business, and industry. To be published biweekly, the *Journal* will emphasize providing fast distribution of news and new information. Publishing 26 issues per year on locally-printed newsprint (the printer can easily run 100,000 copies in one day), with typesetting being done completely in-house allows the mailing of information within four to 14 days of its being received in the *Journal* editorial offices. In comparison, monthly magazines typically report a 2-6 month leadtime requirement on editorial content, and 1-2 months or more on advertising copy. Though there are a number of excellent magazines providing high-quality copy and valuable reference and feature articles for this community, this is the first fast-turn-around news facility to address the general area of low-cost computing with special emphasis on so-called "personal computing."

The *Journal* is being edited and published by Jim C. Warren, Jr., previously the editor of *Dr. Dobb's Journal*, an unusual personal computing magazine published by People's Computer Company. Jim combines editorial experience, a reputation for "telling it how it is", a dozen years of experience as a computer professional -- much of it as a consultant specializing in small computers, widespread contacts in the amateur and professional computing community, and four academic degrees in computer engineering and mathematics...producing an ideal person to edit such a periodical.

The *Intelligent Machines Journal* will specialize in such items as: news while its hot, affordable classified ads, *current* product information, and -- importantly -- dialogue concerning developing aspects of the industry.

DESIGN DISCUSSIONS NOW POSSIBLE

For instance, the *Journal* will carry discussions and replies, as well as articles, concerning the design and implementation of the digital broadcasting system called the Digicast Project (see article, elsewhere in this issue). A number of design decisions must be made at the beginning of the Project that will affect consumers nationally, and probably internationally. It is most appropriate to publish and distribute the initial design proposals; publish feedback and suggestions those initial proposals incite; and iterate on this process several times -- under the assumption that it is better to have good ideas from a number of people than to presume that one person or small team will produce all the right decisions. Had such a process been conducted with the design of the Altair bus -- of which, there are a multitude of minor variations, all going under the single title of "S-100" -- then the personal computing industry would not be stuck with such an ill-designed and unnecessarily limiting bus structure as a default semi-standard.

However, such dialogues and fast-turnaround mass distribution information exchange are not possible when the only media are (1) letters, or (2) monthly or bimonthly or quarterly magazines and professional journals (particularly the snail-paced refereed journals). The *Journal* proposes to offer a facility appropriate to this application.

EASY PRODUCTION OF SPECIAL INTEREST NEWSLETTERS

Additionally, the *Journal* is available to carry -- from time to time -- the partial or complete contents of the newsletters of various user groups

OVER 100 EXHIBIT SPACES ALREADY TAKEN IN 3rd FAIRE, MORE LOW-COST SPACE STILL AVAILABLE

Commercial exhibitors have already rented more than 100 exhibit spaces in the mammoth Los Angeles Convention Center for the Third West Coast Computer Faire, November 3-5. A total of 346 spaces are available, including 62 microbooths -- 6'x6' spaces provided explicitly for the smaller companies, consultants, and computer craftspeople -- available for an extremely low rental fee. Of the 346 spaces, 36 are 10'x10' spaces organized into six 6-booth "hex islands" facing the front entrance or the social area and snack concessions. Another 48 spaces are grouped into twelve 4-booth "quad islands" along the 20' wide center aisle. The 200 other spaces are 10'x10' booths with exposure on one or two 10'-wide aisles.

Rental of these booths is a third to a half of the rates charged at any of the "professional" computer conventions, and even at some of the amateur shows.

Everyone interested in considering exhibiting their wares in the 3rd Faire should immediately contact the Computer Faire at Box 1579, Palo Alto CA 94302, (415) 851-7075.

and special interest groups, e.g. a FORTH or PASCAL newsletter, a PET or SOL or TRS-80 user's newsletter, etc. Because it is on newsprint the *Journal* can afford to do so. This will provide much wider exposure for the ideas expressed in such newsletters than would otherwise be possible, and will take the production, printing, and distribution burdens off of the volunteers producing such newsletters. Groups interested in this proposal should contact the editor.

REGIONAL ISSUES TO INCLUDE LOCAL NEWS

As the *Journal* subscription base grows to a reasonable threshold level for a given geographic area, it will produce regional editions, carrying all of the general news, plus region-specific news and advertising -- e.g., local club information (or complete club newsletters, if the club is large enough to support it and wishes to rid itself of the production/printing/distribution problems), advertising from local stores and retailers, and news of such things as local computer courses, and special computer sales for local residents.

SUBSCRIPTION DETAILS

Subscriptions to the *Intelligent Machines Journal* are \$18 for 26 issues (one year). Subscribers may use the postage-paid form found elsewhere in this issue of the *Silicon Gulch Gazette* for easy subscribing. The first issue is planned for September, with biweekly issues thereafter. Note: A preliminary announcement of the *Journal* indicated that the first issue would be out in the first of August. That has been delayed due to slower-than-expected progress in construction of new facilities and installation of the newspaper production equipment.

PREPUBLICATION NAME CHANGE

Initially this publication was going to be the *Journal of Intelligent Machines*. However the abbreviation was just too much for the Editor, Jim Warren. Thus, the title was revised to be the *Intelligent Machines Journal*... IMJ (anybody speak Pig Latin?)



Part of the Computer Faire staff (at the 2nd Faire banquet)

3rd COMPUTER FAIRE BROADENS ITS FIELD OF INTEREST: LOW-COST COMPUTING FOR HOME, BUSINESS, & INDUSTRY

The First and Second Computer Faires were primarily oriented to the topic of personal, home, and hobby computing. They were organized when the field of microcomputers was just beginning to blossom, and when the market and applications were relatively unknown. As the industry and the small computer community matured in 1978, some new directions and different emphases became evident — and the expanded character of the 3rd Faire reflects these changes.

The Faire will certainly continue to significantly address the topic of home and hobby — personal — computers, in both its Conference Program and the commercial exhibition. However, there will also be significant exhibitions of computer-based products for business and industry, as well as for the home. For instance:

LOW-COST BUSINESS SYSTEMS

Prior to 1978 and even into the first part of the year, microcomputer-based business systems were either unavailable, or were in their development or debugging stages in most cases. This was primarily due to the lead time necessary to develop and thoroughly debug useful and comprehensive business applications software. Now, however, a wide collection of hardware, software, and integrated systems are available at prices far lower than were ever seen in the mini-computer era.

A number of these offerings will be exhibited in the 3rd Faire, and several of the manufacturers or programmers will be discussing them in the Conference Program.

INEXPENSIVE EDUCATIONAL SYSTEMS

An increasing number of computers, programs, kits, and systems have also come on the market, directed towards the educational community. Some of these are offered to assist in the teaching of programming or computer or digital engineering, while others are designed to provide computing power for general use in the classroom laboratory, or school administration.

Many of these will be exhibited in the 3rd Faire.

WORD PROCESSING SYSTEMS

An increasing variety of increasingly exotic letter-writing and typing systems are becoming available to assist managers and administrators in conducting more efficient office operations. It is generally difficult for the potential user of such systems to examine these systems, and it is particularly difficult to compare them under ordinary circumstances. However, the Computer Faire has explicitly contacted about fifty manufacturers of word processing equipment proposing that they exhibit their wares in the 3rd Faire, and suggesting that they choose exhibit spaces in a single quadrant of the Exhibition Hall — thereby assisting potential customers to easily make comparison.

More information will be available in the next *Gazette*, indicating which word processing manufacturers will be exhibiting in the Faire, and perhaps indicating what equipment they will be displaying and demonstrating.

These manufacturers have also been encouraged to give talks in the Conference Program — both concerning word processing in general, and detailing their products in particular.



Gary Kildall accepting surprise award for outstanding 1978 contribution to personal computing (awarded by Adam Osborne during 2nd Faire banquet)



PCNET speakers at 2nd Faire
DAVE CAULKINS MIKE WILBER RON CRANE

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A Word About Tape Quality

All video tape, most computer tape, and some good cassette tape is calendared. Calendaring is what gives tape the smooth, glossy appearance on the oxide side. (Compare a Maxell UD tape to a poly pack tape and you'll see the difference.)

As you know, if your tape heads are dirty, you lose frequency response. A rough tape surface causes virtually the same effect as dirty heads. It prevents intimate tape head contact with the main body of the tape. When tape is coated, it has millions of microscopic peaks and valleys. Calendaring eliminates the peaks and valleys, causing a very smooth surface. In addition, since there are no rough peaks, there is less oxide ruboff and less head wear.

Calendaring is just one of the many high quality features you'll find in Creative Computing Software cassettes. We could have purchased cassettes for half the price that would have worked, but we wanted to be sure that our cassettes would last for years and would give you an error-free program load every time.

Rather than rush our software to market, we've paid attention to tape quality, the cassette mechanism (it won't jam), redundant recording, and packaging (hard plastic box) as well as the programs themselves. With Creative Computing Software, you can be sure you're getting the absolute best that money can buy.

PET (8K) Software

CS-1001. Logic Games-1. Six favorites from *BASIC Computer Games* with super graphics. **Awari**, the African logic game with 12 pits and 36 beans. **Bagels**, which challenges you to guess a secret 3-digit number. Martin Gardner's **Chomp** in which you chomp on a cookie with a poison corner. **Flip-Flop**—change a row of X's to 0's. **Hexapawn** played with three chess pawns. **Hi-Q**, a solitaire peg-removal game. \$7.95.

CS-1002. Number Games-1. Six number logic games including **Guess** in which you guess a secret number. **23-Matches**—try not to take the last match. **Letter** in which you guess a secret letter. **Number**, a random jackpot game. **Trap** in which you trap a mystery number between two trap numbers. **Stars** gives you stars as clues to the secret number. \$7.95.

CS-1201. Education Simulations-1. Five super simulations including the popular **Animal** in which the computer learns animals from you. **Fur Trader** lets you trade furs in old Canada. **Hammurabi** in which you manage the city-state of Sumeria. Or try making your fortune in the **Stock Market**. A logic game, **Word**, has you guess secret words. \$7.95.

CS-1003. Logic Games-2. Six challenging puzzles including **Rotate**, in which you order a matrix of random letters. **Strike-9**, try to remove all nine digits without striking out. The classic number game, **NIM**. In **Even-Wins** try to take an even number of chips. **Hi-Lo**, a number guessing game with a jackpot. **Batnum**, the super "battle of numbers!" \$7.95.

CS-1004. Graphics Games-1. Five amazing realtime graphics games designed especially for your PET. In **Chase**, one player pursues the other through a maze of obstacles and "zap doors." **Escape**—attempt to escape from a prison patrolled by robot guards. **Dart** provides arithmetic drill and indicates how close your response is to the correct answer on a dart board. In **Snoopy** you compute distances on a number-line while trying to shoot down the Red Baron. In **Sweep** you must try to hit nine targets in order by controlling the path of a cannonball. \$7.95.

creative
computing
software

CS-1005. Graphics Games-2. Six favorite games. **LEM**, lunar lander with a graphic display and optional auto-pilot. **Nuclear Reaction**, a game of skill for two players. **Artillery**, in which two players shoot it out over computer-generated terrain. **Bounce** traces the path of a ball bouncing around the screen. **Checkers**, with graphic display, from our *BASIC Games* book. **Dodgem**, try to outmaneuver another player or the computer to get your pieces across the board first. \$7.95.

CS-1006. Conversational Games-1. Talk to **ELIZA**, the computerized psychoanalysis program. Compose poetry with **Haiku**. Challenge your vocabulary and word-guessing skills with **Hangman**. **Hurkle**, try to find the hurkle on the 10 by 10 grid in five moves. In **Hexletter**, you compete to capture more letters on a hexagon than your opponent. \$7.95.

CP/M Software

CS-9001. Games-1. An 8" floppy disc containing most of the first fifty games from *Basic Computer Games* in Microsoft Basic. All the games from **Accey Ducey** to **Hi-Q** including such favorites as **Animal**, **Bullfight**, **Craps**, and **Hangman**. (To run this, you need CP/M and Microsoft Basic.) \$17.95.

CS-9002. Games-2. The second half of *Basic Computer Games* including **Life**, **LEM**, **Mugwump**, **Stars**, **23 Matches**, **Word**, and forty more! 8" floppy disc. \$17.95.

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To Order...

Creative Computing Software should be stocked by your local retail computer store. If your favorite outlet doesn't yet offer it, have him call C.J. at 800-631-8112. (In NJ, 201-540-0445).

Or you can order directly from Creative Computing. Send your check for tapes plus \$1.00 shipping and handling per order to Creative Computing Software, P.O. Box 789-M, Morristown, NJ 07960. NJ residents add 5% sales tax. Visa or Master Charge are acceptable also. For faster service, call in your bank card order toll free to 800-631-8112. (In NJ, 201-540-0445).

FIRST West Coast Computer Faire

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SECOND West Coast Computer Faire

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CONFERENCE PROCEEDINGS FROM
FIRST & SECOND COMPUTER FAIRES
STILL AVAILABLE

The Computer Faire still has copies of both issues of its *Conference Proceedings* in stock. When this stock is depleted, these unique reference and tutorial publications will *not* be reprinted.

The *Conference Proceedings of the FIRST West Coast Computer Faire* contains over 300 pages of technical papers and tutorials that were presented at the Faire, held in San Francisco in April, 1977. Though some of these papers have since been reprinted in various magazines and books, most of them remain available only in the *Proceedings*.

The *Conference Proceedings of the SECOND West Coast Computer Faire*, produced in March of this year, contains over 500 pages of state-of-the-art technical papers, tutorials, and discussions relating to low-cost computing.

The complete Tables of Contents for these two publications are given on the facing page. (Page numbers are included to allow the reader to ascertain how extensive the treatment of any particular topic may have been). The adjacent form may be used to order one or both publications. A \$2 discount is available when ordering both items at the same time. Payment must accompany the order.

PANEL ON LEGISLATION AFFECTING
COMPUTER OWNERS & USERS BEING
PLANNED FOR 3rd FAIRE

John James has become aware of and concerned about Senate Bill 1766, the "Federal Computer Systems Protection Act of 1977," which has massive ramifications for computer owners and users -- particularly including users of small and personal computers. As a result of this interest -- a desire to open communication between the legislators and the non-IBM computer community -- he is organizing a major Conference session addressing this topic.

He is currently contacting a number of specialists and interested parties, inviting them to participate in this session. These include federal Representatives and both California Senators, specialists in the Office of Telecommunications Policy, attorneys, and lay people having a particular interest in the area.

Several people have already accepted this invitation. One of these is Susan Nycum, an attorney who is a nationally known specialist in computer law. Ms. Nycum has testified before the Congressional Committee considering SB 1766. Others who have accepted include John Draper who has had several tangles with laws relating to electronics and computers, and is currently actively researching the area, and Gordon French the founder of the Homebrew Computer Club, and a computer professional deeply concerned about possible negative or unnecessarily restrictive impacts of legislation on the area of personal computing.

It is beginning to appear that, as federal experts and legislators join in this Conference section, it may become a full-day program, and will be presented in several sessions. Assuming that legislators *do* accept the invitations being extended to them, this will be their first opportunity to communicate with non-maxicomputer, non-business-computing oriented computer owners and users. As such, it should be highly enlightening to both panelists and attendees, and -- ultimately -- should produce far better and more desirable legislation than is otherwise likely to be forthcoming.

Those interested in seeing this panel produce maximum benefit should encourage legislators to participate, or send their representatives a card or letter requesting that they attend. Those with suggestions, contacts, or interest in assisting with the organization of the program should contact John James at 1090 Miller Avenue, Berkeley CA 94708, (415) 527-6679.

NEW MEMORY SYSTEM?

We have heard of a new memory system for big computers. It's called the Cache 22.

SPEAKERS

Yes, I wish to give a half-hour talk at the 3rd West Coast Computer Faire being held in the Los Angeles Convention Center, November 3-5 (Fri--Sun). The topic I propose is:

I am willing to submit at least a one-page abstract in your specified format, and possibly a full-text paper outlining or covering this proposed talk for inclusion in the 3rd *Conference Proceedings*. Please immediately forward Speaker's/Author's instructions.

CONFERENCE PROCEEDINGS

Please send _____ copies of the 334-page *Conference Proceedings of the FIRST West Coast Computer Faire*, for which I have enclosed payment of:

- () \$13.00 each, for shipment to my non-California address
() \$13.72 each, for shipment to my tax-laden California address.

Please send _____ copies of the 505-page *Conference Proceedings of the SECOND West Coast Computer Faire*, for which I have enclosed payment of:

- () \$14.00 each, for shipment to my non-California address
() \$14.78 each, for shipment to my tax-laden California address.

Please give me the \$2 savings allowed for my ordering *both* the *FIRST* and *SECOND* Computer Faire *Conference Proceedings*. Please send me _____ pairs of copies of both *Proceedings*, for which I have enclosed payment of:

- () \$25 each pair, for shipment to my non-California address
() \$26.50 each pair, for shipment to my tax-laden California address.

Please make checks payable to: "COMPUTER FAIRE"

Above prices include: cost of the *Proceedings*, handling, UPS or 4th class shipping, and applicable taxes. Both publications are currently in stock. Computer Faire will not reprint *Proceedings*, once the present stock is exhausted. Therefore, a *full* refund will be promptly made if its stock is depleted.

name _____ phone number (just in case) _____

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OR

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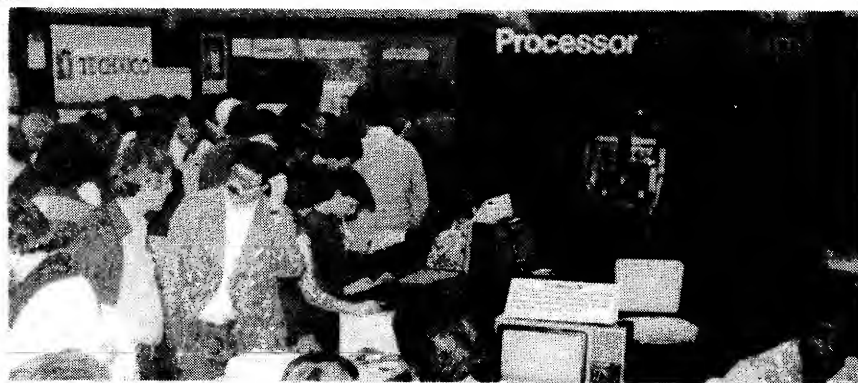
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SNAPSHOTS AT THE SECOND WEST COAST COMPUTER FAIRE





Speakers (voice and sign)



Panelists



Musicians



Underattended Conference session



Banquet speakers & VIP

Portia Isaacson Bill McKeeman Alan Kay Adam Osborne Gordon French



*Waiters
(They didn't get their
registrations in advance)*



*Eaters
(one of the banquets)*



*Organizers
Bob Reiling Rick Bakalinsky Jim Warren*

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Note: CURSOR is *not* affiliated in any way with Commodore Business Machines, Inc. PET is their trademark, (and CURSOR is ours...)

TRS-80

COMPUTING

VOL. 1, NO. 1 AUGUST, 1978 32 PAGES \$1.50

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THIRD

WEST COAST

COMPUTER FAIRE

November 3, 4, 5, 1978
9am-6pm 9am-6pm Noon-5pm

APPLICATION FOR HOTEL RESERVATIONS

Please telephone or send your reservations directly to the hotel of your choice, and request the special Computer Faire rate. (Special rates have been arranged with the hotels listed in the chart below.) These hotels are within a few blocks of the Los Angeles Convention Center. We suggest that you complete your reservations soon in order to obtain reservations of your choice.

Do NOT send reservations to Computer Faire

Please confirm all arrangements and rates in advance with your hotel to assure no misunderstandings regarding rates, and arrival/departure schedules.

Please complete the forms below if you mail your reservation to the hotel.

Date of Arrival _____

Hour _____

Date of departure _____

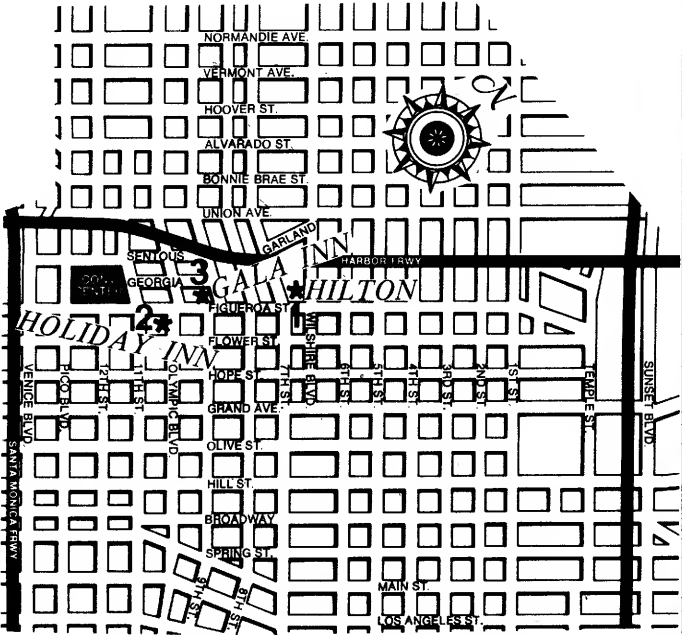
Mode of travel _____

Accommodations:

Single _____ Double _____ () 1 Bed

Other _____ () 2 Bed

Occupied by: _____
(bracket all names sharing same room)



HOTEL	Single	Doubles/Twins	Suite
Headquarters Hotel			
1 Los Angeles Hilton 930 Wilshire Blvd Los Angeles 90017 (213) 629-4321	\$34 \$37 \$40	\$44 \$47 \$50	\$115+
2 Holiday Inn of L.A. Convention Center 1020 S. Figueroa St Los Angeles 90015 (213) 748-1291	\$29	\$35	—
3 Gala Inn Towne Motor Hotel 925 S. Figueroa St Los Angeles 90015 (213) 628-2222	\$24	\$26	—

NOTE: A deposit may be required by the hotel.

Send Confirmation to:
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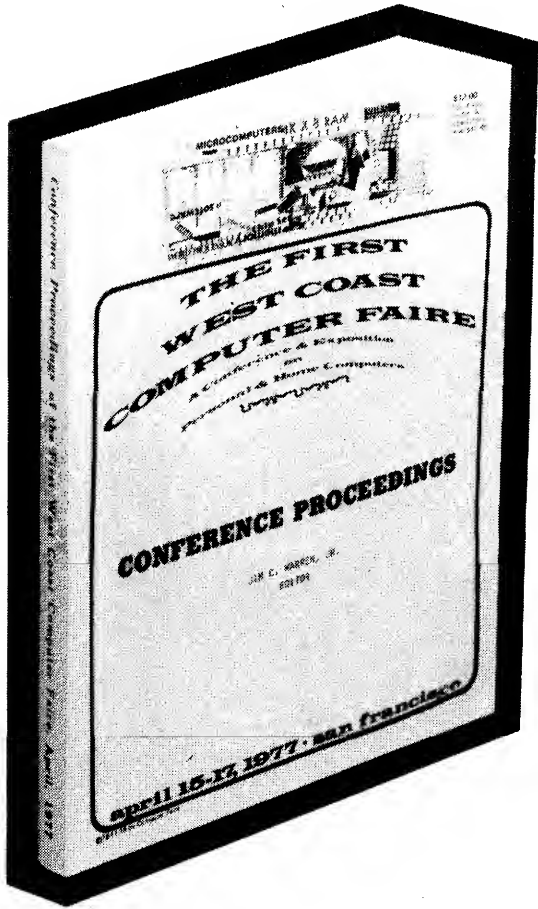
State _____ Zip _____

Telephone () _____

FIRST COMPUTER FAIRE CONFERENCE PROCEEDINGS STILL AVAILABLE

The *Conference Proceedings of the First West Coast Computer Faire* are still available. Containing over 330 pages of abstracts, tutorials and technical talks presented by more than 90 speakers at the First Faire, this publication is of historical as well as technical value in the computer field: This is the first time the papers from a major conference exclusively devoted to home and hobby computing have ever been gathered together and published.

The papers and abstracts are grouped under 25 different Section headings, ranging from the Friday and Saturday banquet Speeches, and Tutorials for the Computer Novice, through Computer Art Systems, and Music & Computers, to Bus & Interface Standards, and Tutorials on Software Systems Design. These include presentations by such well-known figures as science fiction author Frederik Pohl, Professor John McCarthy -- the Director of Stanford's Artificial Intelligence Project, Carl Helmers -- the Editor-in-Chief of Byte Publications, and John Chowning -- the Director of the Computer Music Project at Stanford University.



HOW TO OBTAIN A COPY:

Copies of the *Proceedings* may be purchased in most retail computer stores, or may be ordered directly from the Computer Faire, Box 1579, Palo Alto CA 94302. When ordering direct, payment must accompany the order -- \$13.00 outside of California, \$13.72 for orders shipped to California addresses. This payment includes shipping and handling charges, and tax where applicable. Copies are in stock and will be shipped by 4th-Class, Book Rate, within one week of receipt of order and payment. Please add \$2.00 to your remittance if you wish the *First Proceedings* to be shipped by First Class/Air Mail.

INFLATING OPINIONS

The American Council of Life Insurance conducted an opinion survey concerning who or what is causing inflation. 45% of the respondents blamed government; 24% blamed labor unions; and 9% blamed business. About 95% of those responding felt that inflation was -- in fact -- affecting their lives.

DIGICAST ADDRESS

Correspondance concerning the Digicast Project should be directed to:
Digicast Project
345 Swett Road
Woodside CA 94062

DIGICAST PROJECT *continued from front page*

or trash problem. Digicasting -- using only *one* transmitter (how many FM transmitters are in *your* area?) -- can distribute at least an order of magnitude more information than can a traditional daily metropolitan newspaper. It allows immediate distribution of news and data; when the editor or reporter decides the article he or she has typed into the transmitter computer system is ready for transmission... it's transmitted. Since the incoming data is in machine-readable form, the consumers can use their intelligent receivers to assist in searching and saving the flood of incoming information. "Let your computer do the walking."

TECHNOLOGICALLY, POLITICALLY, & FINANCIALLY VIABLE

No technological breakthroughs are needed; the technology has already been proven. No regulatory breakthroughs appear necessary; the FCC (Federal Communications Commission) has already adopted a policy explicitly allowing such transmission on SCA's -- the so-called "Subcarrier Authorizations" available for every commercial and every nonprofit FM broadcaster. No significant consumer expenditures appear necessary; the receiver module capable of receiving the analog FM signal and converting it into parallel or serial digital output are obviously able to be produced for retail sale in the range of \$50-\$100 -- with considerable reductions certain, once the consumer market can support volume production.

THE TIME IS NOW!

The Digicast Project is planning on beginning transmission as soon as is feasible from organizational, manufacturing, and economic viewpoints. There is some reason to believe this may be early 1979.

The Project plans to place most of its developments in the public domain -- it is no more reasonable to attempt to monopolize such a proposed information utility than it would have been for Gutenberg to have attempted to monopolize the printing technology he developed. System design, transmission and format protocols, receiver protocols, etc. will be published and thereby placed in the public domain. Only explicit hardware or software implementations will remain proprietary -- with more than enough design and protocol information in the public domain to allow others to construct similar and competitive systems and equipment.

The number of Digicast transmitters that will be initially operational is strictly a function of the amount of venture capital initially invested. Current plans call for the first unit to be in the San Francisco Bay area, with additional units planned for other high-population, high-technology areas as soon as they can be financed. The start-up costs involve design and implementation of the transmitter hardware and software, organizing the editorial operations staff, design of the receiver units, and -- over all of this -- design of the system and protocols. Operational costs will include leasing SCA's from FM station owners (a *significant* cost), leasing news wire services, editorial and operations staffing, and promotion -- spreading the word of this new and useful information utility.

THE DIGICAST PROJECT

The creator and Director of the Project is Jim C. Warren, Jr., a computer professional of a dozen years' experience, and an Editor of a journal for the past several years. (He is also the initiator and Chairperson of the West Coast Computer Faires.) He has sought out and received active support, suggestions, and informal direction in this project from a number of experts and specialists, including such people as Professor Ed Parker of Stanford University's Center for Communications Research, Paul Baran of CableData, and Dave Caulkins, one of the leaders of the PCNET Project.

DIGICAST WORKSHOPS

Early this Fall, Warren will convene a series of Digicast Workshops on the San Francisco Peninsula. These Workshops will address the various major aspects of making Digicasting

operational, including: Organization & Financing, Transmission Electronics Protocols, Low- & High-Level Data Formats, Receiver Hardware Design & Implementation, Transmitter Hardware & Software Design, and Data Transmission Protocols. To a large extent, these will be invited Workshops for experts and specialists rather than conferences for interested observers. Their purpose is to produce initial designs, protocols, and a business plan. These will then be published, and feedback and suggestions for improvement solicited. In all likelihood, a Project Status Report will be given as part of the Conference Program of the 3rd Computer Faire -- which *will* be for interested observers.

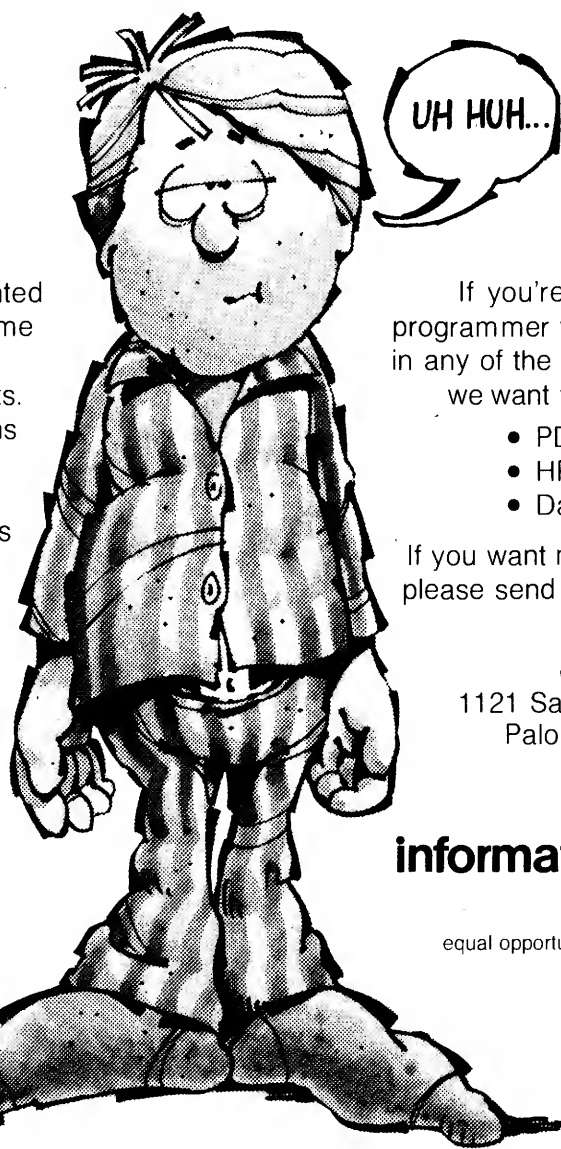
Regarding the Workshops: There will probably be a nominal fee charged to participants--\$5-\$50 -- that may be waived under special circumstances. Everyone interested in being considered for participation should write -- *don't phone*, outlining in one page or less their interests, expertise, and the contributions they feel

they could make in these initial design sessions. If they are too busy to write such a page, or if they are unable to limit it to one page, then ... that will say something about their probable ability to make a significant contribution.

NEWS OF DIGICAST DEVELOPMENTS & DESIGNS

As the Digicast Project proceeds, news of its progress, details of the initial and final hardware, software, systems, and protocol designs, etc. will be published in a fast-turnaround bi-weekly newspaper being started by Jim Warren, the *Intelligent Machines Journal*. This will be the major source, and certainly the fastest source of current information regarding all public aspects of the Digicast Project. Of course, additional information will be made available on occasion, at conferences and conventions, and through lay and professional periodicals, manuals, and other publications.

Remember when it used to be exciting to get up and go to work in the morning?



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INTELLIGENT MACHINES JOURNAL

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 - *Those in the business of small computing
 - *Professionals wanting to know what's *really* happening, right *now*
- Foci:*
- *Personal, home & hobby computing
 - *Inexpensive intellectual assistants for business
 - *News of the industry -- conventions, standards ideas, computer business
 - *Affordable logical aids for researchers
 - *Electronic music events, interactive stain glass (video art) developments
 - *Teaching machines developments for use in home and school
 - *Periodic reference information, published in permanent form suitable for filing

Please complete and fold in the obvious manner. Insert a check & staple or tape closed.

Name-----	I am enclosing a check for my subscription to the
Mailing-----	<i>Intelligent Machines Journal</i> for:
Address-----	()\$18 for 26 issues (one year)*
City-----	
State-----Zip/Postal Code-----	*2nd Class Mail in the U.S. First issue will appear before October NOTE: Write for overseas rates & for First Class Mail delivery rates.

I think your Digicasting Project is the hottest idea in news distribution since Gutenberg invented his printing press. I applaud your plan to publicize and distribute the system design and protocols for widespread use, and wish to support your efforts. Therefore I am enclosing a donation of \$_____ to help underwrite your Digicast Project expenses. (002)

Please make checks payable to "Intelligent Machines Journal" or simply "IMJ".

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Woodside CA 94062

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Redwood City, CA

CALL FOR SPEAKERS *continued from front page*

the Third Faire.)

Speakers are normally scheduled for a half-hour period in which to give their presentations and conduct a brief question-and-answer session. They are generally expected to submit at least an abstract of their talk, and — preferably — a full text paper covering and/or expanding upon their verbal presentation. These abstracts and papers are published in the *Conference Proceedings* of the Faire (which have been 330 pages and 504 pages for the two previous Faires), giving the speakers' ideas international distribution. Additionally, the copyright for the paper is retained by the author, thus allowing him or her to submit it for publication in a magazine or book — often with payment of a fee or royalty to the author. The advantage of writing the paper for the Faire is that the Faire deadline forces the writing to be done...instead of being put off. Presenting it to a live audience also provides immediate feedback that can almost invariably assist the author in improving a paper before submitting it to a commercial publisher.

Now, the ringer:

The deadline for submitting papers and abstracts in the specified format .

is:

SEPTEMBER 18, 1978

The Computer Faire can slip that deadline until about October 1st. However, the *Conference Proceedings* will go to layout and paste-up on October 2nd, after which, papers simply cannot be included. (Please note: The first Call for Speakers was published last May). Similarly, scheduling of the Conference Program will begin at that time, and later additions become impossible.

So, to speak at the Third Faire, and have a paper published in the *Proceedings*:

1. **Begin outlining and drafting the paper, NOW!**
2. **Write or phone us and request a Speaker's/ Author's Kit.**
3. **Plan to return your completed paper or abstract by September 18th, or as soon as possible thereafter (earlier returns are very helpful).**

WANT ADS

Want Ads are being accepted for publication in the Silicon Gulch Gazette. Please submit the ad copy, typed and double-spaced, and payment of \$40. Up to one column-inch of your copy will be typeset, and will appear in the next available issue of the Gazette. If your ad exceeds one column-inch, we will edit it at our discretion. The \$40 is a minimum charge. Each press run of the Gazette consists of at least 50,000 copies (this issue is 90,000), distributed without charge to individuals nationwide and in bulk to stores and organizations.

If you are a microcomputer hobbyist, you will enjoy the ancient game of GO. Go, the oldest game in existence, has all the complexities of programming yet is exciting from the outset. Send for our free catalog. Write: Sabaki Go Company, P.O. Box 4195-G, Wilmington DE 19807.

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The TNW488/103 LOW SPEED MODEM MODULE (\$320) is a Bell 103 compatible mode modem (75 to 600 bps) with full auto-dial, auto-answer, auto-originate capabilities (connects to phone system via Data Access Arrangement.).

Both units incorporate a real IEEE 488 bus interface, and include power supply on the board. 90 day limited warranty, 2 to 8 week delivery. Cabinet (\$35) and PET cable (\$20) also available. Contact The Net Works, represented by Astronics, 4805 Mercury St., San Diego CA 92111 (714)278-5441.

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Palo Alto, California 94302
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MAKING FAIRE HOTEL RESERVATIONS?

If you call to make a reservation at any of the three hotels with which the Computer Faire has arranged reduced room rates for Faire attendees, be sure to indicate that you wish the Faire rates — that is, the Computer Faire rates — and that you are attending the Faire.

A Hotel reservation form is elsewhere in this issue of the *Gazette*.

3rd West Coast Computer Faire
to be held in the
Los Angeles Convention Center
November 3, 4, 5, 1978
9am-6pm 9am-6pm Noon-5pm
(Friday through Sunday)

IF

You receive more than one copy of
Our Glorious *Gazette*,

THEN

You're obviously a true computer fanatic
(oh joy!)

AND

are on more than one magazine mailing list.

PLEASE

Pass the extra copy along to a fellow
Computer Enthusiast

SILICON GULCH GAZETTE

Volume 3, Number 2

Computer Faire, Box 1579, Palo Alto CA 94302; (415) 851-7075

78Sep27

Conference Section

AN INTRODUCTION TO PERSONAL COMPUTING: A BEGINNER'S GUIDE

Bob Moody, Mike Triolo, and Jerry Fox will present tutorials providing "An Introduction to Personal Computing: A Beginner's Guide" at the 3rd West Coast Computer Faire. They will explain both hardware and software aspects of personal computing, and will define many of the computer buzz words necessary to penetrate the world of small computing. Even a short discussion on learning how to program will be included in Moody's presentation.

Bob Moody is an owner of the Byte Shop of Palo Alto and has written a book entitled "The First Book of Microcomputers: A Home Computer Owner's Best Friend" on which much of the Faire presentation is based.

Mike Triolo has worked in the computer industry for 14 years and has experience with both software and hardware.

Dr. Jerry Fox is a Professor of Engineering at San Francisco State University. He has developed and teaches a course on microprocessors and controls which includes an 8080-based laboratory.

OLD PROS TO DISCUSS EARLY DAYS OF CALIFORNIA COMPUTING

The Conference Program of the 3rd Computer Faire will include a delightful Section of internationally known long-time computer professionals discussing what computers and computing was like in those early days of California computing — around 1947 to 1954. This Conference Section was organized by Professor Henry Tropp, who was the Principal Investigator for the multi-year Computer History Project jointly sponsored by the Smithsonian Institution and AFIPS.

The speakers will include Paul Armer, one of the founders of the Association for Computing Machinery and currently heading up the Charles Babbage Institute, Fred Gruenberger, and Professor Tropp — and is likely to include several other notables (if they can make it back from another meeting in time for the Faire). Mr. Gruenberger will connect his reminiscences of those early days to the current maze of micros in a talk he has titled, "Must Personal Computing Repeat Every Mistake Ever Made?" Professor Tropp will Chair the meeting and offer a variety of stories of the "ol' days" gleaned from his own, in-depth interviews with many of the founders of modern computing — those interviews conducted while he was working on the Smithsonian/AFIPS History Project.

It is certain to be an enjoyable program, and well may offer some interesting insights gained from the past, concerning the present and future of our thinkertoys.

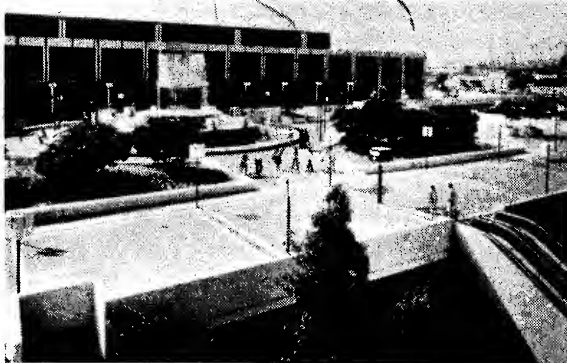
A \$49 QUALITY PRINTER?

The question: "Why Can't We Have A \$49 Correspondence-Quality Printer?" will be addressed by Bill McLaughlin. Pictures and diagrams will illustrate the "homebrew" project that McLaughlin put together, interfacing "any electric typewriter" to a computer. This has resulted in "letter quality" printing. Comparisons to commercial printers in the areas of print quality and speed will be made, and justifications for constructing this low-cost interface to convert a typewriter into a printer will be offered.

Details of construction, and parts availability will be given, as well as a discussion of software appropriate for such devices.

Los Angeles Convention Center

Site of 3rd West Coast Computer Faire



3rd COMPUTER FAIRE BROADENS ITS FIELD OF INTEREST: LOW-COST COMPUTING FOR HOME, BUSINESS, & INDUSTRY

The First and Second Computer Faires were primarily oriented to the topic of personal, home, and hobby computing. They were organized when the field of microcomputers was just beginning to blossom, and when the market and applications were relatively unknown. As the industry and the small computer community matured in 1978, some new directions and different emphases became evident — and the expanded character of the 3rd Faire reflects these changes.

The Faire will certainly continue to significantly address the topic of home and hobby — personal — computers, in both its Conference Program and the commercial exhibition. However, there will also be significant exhibitions of computer-based products for business and industry, as well as for the home. For instance:

LOW-COST BUSINESS SYSTEMS

Prior to 1978 and even into the first part of the year, microcomputer-based business systems were either unavailable, or were in their development or debugging stages in most cases. This was primarily due to the lead time necessary to develop and thoroughly debug useful and comprehensive business applications software. Now, however, a wide collection of hardware, software, and integrated systems are available at prices far lower than were ever seen in the mini-computer era.

A number of these offerings will be exhibited in the 3rd Faire, and several of the manufacturers or programmers will be discussing them in the Conference Program.

INEXPENSIVE EDUCATIONAL SYSTEMS

An increasing number of computers, programs, kits, and systems have also come on the market, directed towards the educational community. Some of these are offered to assist in the teaching of programming or computer or digital engineering, while others are designed to provide computing power for general use in the classroom laboratory, or school administration.

Many of these will be exhibited in the 3rd Faire.

Conference Session

FUTURIST TO PREDICT FORTHCOMING INTELLIGENT MACHINES

Have you ever thought what it might be like to carry on an intelligent conversation with your house? Or play Econogame with 50 million North Americans? It's coming, and soon. This, along with other glimpses of tomorrow will be discussed by Alan P. Hald, co-founder and President of the Phoenix Group, in a seminar on "Visions of a Futurist."

Conference Section

LEGISLATION AFFECTING COMPUTER OWNERS & USERS TO BE FOCUS OF MAJOR CONFERENCE SECTION

The Ribicoff Bill concerning "computer crime" would impose felony sentences up to 15 years' imprisonment for using an employer's computer for a personal project without permission, no matter how little computer time was used. This would include non-profit projects such as unsponsored research, club mailing lists, playing games, learning programming unofficially, free exchange of software through professional associations, etc. Permission might be hard to obtain as the same penalty might apply to a supervisor who gave permission for personal use without "authorization" to do so, and "authorization" is not defined in the bill.

The Ribicoff Bill (also called S1766, the "Federal Computer Systems Protection Act of 1977") is co-sponsored by Senators Ribicoff, Domenici, Griffin, Heinz, Jackson, Kennedy, Metcalf, Percy, and Thurmond. The Senate is not expected to complete action on it until next year. Then the bill would go to the House.

The Faire's Conference Section and Panel on "Potential Legislation Affecting Computer Owners and Users" will present talks and panel discussion with audience questions and comments concerning the Ribicoff Bill and other major pending legislation (such as the Communications Act of 1978, which is a complete re-write of the current Federal communications law that dates back to 1934). Other interests include privacy legislation, the new FCC crackdown on RF modulators, NSA secrecy orders against privately-developed cryptographic devices and algorithms, and foreign laws regulating trans-border data flow, including customs problems in distribution of software.

Confirmed panelists so far include computer law expert Susan Nycum, computer security expert Robert Abbott, Library of Congress Information Sciences Specialist Robert L. Chartrand, cryptology expert Ralph Merkle of Stanford, John Tabor, who has closely studied the Ribicoff Bill, Gordon French, a founder of the Homebrew Computer Club, and "Captain Crunch" John Draper. Because of the number of speakers, there will be more than one Section. They will be on different days. The sessions will be chaired by John James, who is organizing the panel.

MAJOR NSF GRANT SUPPORTS STUDY OF FUTURE OF PERSONAL COMPUTERS

The University of Southern California is conducting a study of the future growth and applications of personal computers. The objectives of the study are to analyze present technological and market trends, forecast major developments and trends over the next ten to twenty years, assess the potential benefits and harmful effects of applications of personal computers, and analyze public policy options as they relate to increasing benefits and minimizing harmful effects. Part of the study involves finding out what types of people buy personal computers, what kinds of devices they buy, and their uses for them. Readers of the *Gazette* are invited to write to the Director of the research team, Dr. Jack M. Nilles, with answers to the following questions:

First, regarding the hardware you own or plan to own: What was the first personal computer you ever
(please continue on back page)

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Contact the Faire office, (415) 851-7075,
and request all the dandy details. We will immediately
forward a copy of our Exhibitor's Prospectus.

Conference Session

OSBORNE & FLYNN TO SPEAK
ON INDEPENDENT CONSULTING

Dr. Adam Osborne, author of over 50 books
and manuals covering many aspects of mini and
micro computers, has accepted an invitation to
discuss independent consulting at the 3rd West
Coast Computer Faire. As an author, he is best
known for his all-time best-selling series, *Introduc-
tion to Microcomputers*. He is also read widely in
magazines such as *Interface Age* and *Mini-Micro
Systems*. As a much sought-after conference
speaker and industry spokesman, Dr. Osborne has
much to say regarding independent consulting. For
individuals who have developed microcomputer
skills and have been looking for ways to capitalize
on their expertise, Dr. Osborne's comments will
prove pointed and timely.

Mike Flynn, a member of Computer Sci-
ences Corporation's Undersea Technology Center
staff in San Diego, will chair the section entitled,
"Personal Consulting." He is the founder of
Personal Systems Consulting, a firm dedicated
to supporting independent consultants with hard-
ware, software, maintenance and marketing pro-
grams. He will be presenting a paper describing
his company's approach to supporting
independent consultants.

RS-232 INTERFACE
FOR THE IEEE 488 BUS

The Net Works' TNW488/232 SERIAL
INTERFACE MODULE (\$280) provides two
bidirectional RS-232-C data channels (75 to
9600 bits per second), plus 6 input status bits
and 6 output control bits (use for Clear to Send,
Data Terminal Ready, etc.).

LOW SPEED MODEM
FOR THE IEEE 488 BUS

The TNW488/103 LOW SPEED MODEM
MODULE (\$320) is a Bell 103 compatible
modem (75 to 600 bps) with full auto-dial, auto-
answer, auto-originate capabilities (connects to
phone system via Data Access Arrangement).

For use with Commodore's PET and other
IEEE 488-capable computers, both units incor-
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Conference Session

LEGAL ASPECTS OF THE COMPUTER
INDUSTRY TO BE DETAILED

The Law Offices of patent attorneys Phillips,
Moore, Weissenberger, Lempio, & Majestic will
provide a panel of speakers to the 3rd West Coast
Computer Faire at the Los Angeles Convention
Center. Four attorneys will speak on the panel
moderated by attorney Hugh Finley.

Martin Fleisler will discuss the most recent
decision of the U.S. Supreme Court on the soft-
ware patentability question, regarding the patent
status of an algorithm. He will also discuss basic
principles of patent law as they relate to protection
of software. The title of his talk will be "Patent-
ability of Computer Software."

Hubert E. Dubb will speak on "Trademarks
and Service Marks as Modern Goodwill and as
Franchisable Properties." The requirements for
selecting a good mark, properly controlling prod-
ucts and/or services supplied under that mark,
and enforcing the mark against infringers will be
discussed.

Neil Boorstyn will discuss "Copyright and
Computers." His talk will include a discussion
of the practical, legal, and business aspects of
copyrighting computer programs, and the nature
and scope of copyright protection. He will also
cover the effects of the new law, registration and
deposit requirements, works for hire, and pro-
tection of printed materials (e.g., brochures,
manuals, etc.).

Sheldon R. Meyer will discuss "Infringement
and Licensing of Proprietary Property." He will
treat the exploitation of proprietary property rights
(and patents) through licensing and assignment, and
enforcement of such rights through infringement
litigation.

Hugh Finley will moderate the section and will
comment on topics not covered by the four speakers,
such as trade secrets, foreign rights, and the New Patent
Cooperation Treaty pertaining to international protec-
tion.

Conference Session

MINNESOTA EDUCATION
CONSORTIUM LOOKS AT MICROS

In December 1977, the Minnesota Educational
Computing Consortium (MECC) Board of Directors
established the Microcomputer Task Force. Its
purpose is to advise its Executive Director and
member school systems on matters related to
microcomputers for instructional computing
services.

The objectives of this Task Force are: to
determine strengths and weaknesses of micro-
computer utilization in instructional computing
modes and environments and, to prepare a po-
sition statement regarding large scale acquisition
and utilization of microcomputers in member
school districts.

Findings of the Task Force will be pre-
sented during the Faire by Dr. Kenneth Brumbaugh.
He will discuss such topics as software, system
hardware analysis, and purchase recommendations.

Computer Faire, Box 1579, Palo Alto CA 94302

COMPUTER STORES & ELECTRONICS
DISTRIBUTERS CARRYING
PREREGISTRATIONS FOR 3rd FAIRE

The following hyperactive stores were the
very first to request Faire Prereg forms — including
door passes — for sale to their customers. (A
presumably much larger list will be published in
the next *Gazette*.)

The advantage of getting your Faire regis-
tration early — from a store or distributor — is that
you can just walk right on in, when you arrive at
the Faire (prereg includes your door pass). In this
way, you can avoid registration lines at the Faire.
NOTE: At the First Faire, three reg lines stretched
half a block around San Francisco's Civic Auditorium
Auditorium. . . ask anyone who was there on
Saturday morning. (It was a beautiful day, however.)

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San Diego CA 92111
(714) 560-9912

NORTHERN CALIFORNIA

Byte of Palo Alto
2233 El Camino Real
Palo Alto CA 94306
(415) 327-8080

Conference Session

DETAILS TO BE GIVEN ON STATE OF
THE JAPANESE MICROCOMPUTER
MARKET & JAPANESE HOBBYISTS

Professor Toshiaki Yasuda of Tokyo Denki
University, Tokyo, Japan, will speak on "The Current
Situation of the Japanese Microcomputer Market
and Hobbyists."

Professor Yasuda is especially interested in
word processing of the Japanese language, and
research and development of microcomputers.
He has written several books on the subject of
microcomputers. *Introduction to My Computer*
was published in March, 1977 and sold 350,000
copies.

From his experience, he forecasts that in
Japan in the 1980's demand for personal compu-
ters like the TRS-80 and the Commodore PET
will be 300,000 to 500,000 units per year while
demands for microprocessors will top 10 million
units per year. Of course, he adds that the Japane-
se microcomputer manufacturers are gearing up
for the increased demand. American micro-
computer businesspeople might find his talk
very interesting!

Conference Session

INTERACTIVE LANGUAGE FOR
THE SEVERELY HANDICAPPED

Guy M. Hoelen, Michael S. Bodner, and
William J. Zogby will present a discussion of
"An Interactive Language for the Severely
Handicapped." Hoelen states that the talk will
deal with the use of symbols and language for the
severely handicapped, including the expressive
aphasic.

Conference Session

RF COMMUNICATIONS
& MICROS

"The Microprocessor in RF Communications,
Some Useful Utility Programs for the 1802 Micro-
processor" will be a talk presented by John P.
Rohner at the Computer Faire in Los Angeles.
The talk will include explanations of a disassembler,
call, return, and cassette read and write programs.

SILICON GULCH GAZETTE

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for all the details — (415) 851-7075.

Conference Session

SCAVENGER: A NEW ACTION GAME
FOR PERSONAL COMPUTING NETWORKS

A report will be given on the design and instrumentation of a new computer game called "Scavenger." In contrast to a similar commercially available game, Scavenger has been programmed in the C language to run on Z-80 microprocessors connected via ordinary telephone lines using our personal computing network protocol. The object of this game is to find words hidden in a matrix before your opponent finds the same word. The integrity of each copy of the database is maintained by an interrupt-driven error-detecting message package. A demonstration of Scavenger being played between two Xitan microprocessors connected via dial-up telephone lines is planned.

Conference Session

SOLVING SOMA CUBES & POLYOMINOES
PUZZLES BY COMPUTER

David M. Collison will detail several kinds of puzzles and discuss why they are ideal for solution on the home computer — little input/output, small amounts of data, but massive computation which might need to run overnight. In particular, he will discuss a program which handles two popular puzzles and will present examples of the output and suitable test data. This discussion will include methods of tailoring such programs — often run on megamachines — to a small computer.

Conference Session

CHRISTIANSEN TO PROPOSE GETTING
SERIOUS ABOUT COMPUTER GAMES

Bob Christiansen believes that the quality of games available for the home computer today is generally poor. Feeling that, in most cases, not enough time and thought has been devoted to the development of the games, he proposes that, "in order for there to be more enjoyable games, it is necessary to exert more effort in order to properly design computer games."

In his talk, "Let's Get Serious About Computer Games," Bob Christiansen will discuss four attributes of a good computer game: a good game won't blow up; the game is enhanced by using the computer; it is easy to play; and, the game is challenging to everybody. Christiansen will detail the methods by which these attributes can be built into computer games.

Conference Session

PROTECTING SOFTWARE WITHOUT
PATENTS — WHAT ALTERNATIVES?

A discussion by David B. Harrison on, "Protecting Software Without Patents — What Alternatives" will be presented at the Los Angeles Computer Faire. Recent developments in the law, including a recent U.S. Supreme Court case in which a novel algorithm was not allowed a patentable status, will be examined. Also, recent recommendations of the National Commission on New Technological Uses of Copyrighted Works (CONTU) will be discussed.

The speaker does not agree completely with the ideas proposed for protection of software. He locates the weaknesses of the most recent proposals, and concludes that "a new law is needed lying somewhat between copyright and patent, to provide reasonable protection to novel, innovative programming and concepts."

BRING STICK-ON LABELS TO THE FAIRE

In order to most easily place your name and address on various mailing lists that interest you at the Computer Faire, bring along some stick-on address labels. If you don't already have some of those little, glue-backed return address labels, and you do have a computer, you can always use your machine to make your own on pin-feed, pressure sensitive labels.

Conference Sessions

TWO SPEAKERS DISCUSS MICROS
IN LOCAL GOVERNMENT

Two talks at the Computer Faire will deal with microcomputers in city and local governments.

Charles E. Barb, Jr. of the University of Oklahoma, will discuss "How Microcomputers are Fitting Into Local Government." His talk will outline three types of potential microcomputer applications in local government, sketch illustrative examples of each, and summarize the broader implications of the adaptation of microcomputer technology to improve local government services. He foresees an expanding role for data processing professionals in systems procurement, development, and documentation.

The details of the introduction of microcomputers into the San Jose, California, city government will be explained in Monroe E. Postman's talk on, "Microcomputers in City Government." He will note the types of microprocessors in use, the tasks that they perform, and other details of their operation. He estimates that over \$200,000 per year has been saved because of the use of microcomputers by the City of San Jose!

MAKE YOUR AIRLINE
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Many airlines now offer reduced fares to those who make reservations several weeks or a month in advance. If you are flying to the Faire, see about making your flight reservations (and hotel reservations) now.

TRS-80 COMPUTING

VOL. 1, NO. 1

AUGUST, 1978

32 PAGES

\$1.50

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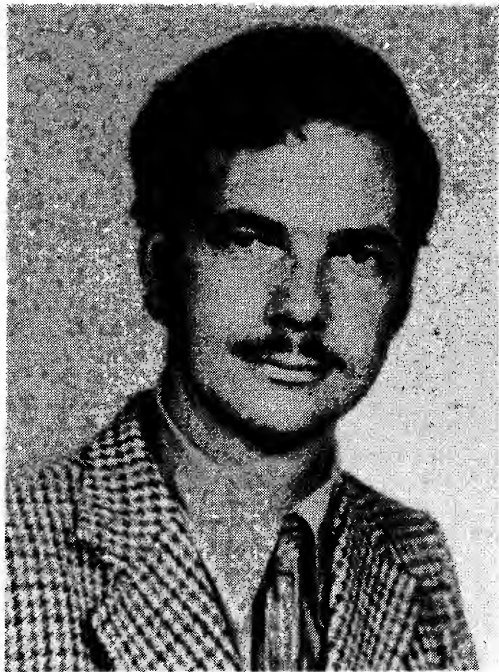
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ADAM OSBORNE TO SPEAK ON FUTURE OF THE MICROCOMPUTER INDUSTRY

Adam Osborne, the well-known author, publisher, and lecturer, will forecast probable developments in the microcomputer industry over the next two years, and in the more distant future — over the next ten years, at the Los Angeles Computer Faire.

Over the next two years, Dr. Osborne sees the microcomputer industry entering a period of consolidation and maturity, during which computer stores will prosper as the new emerging outlet for computer equipment in general. Customers will finally be able to buy solutions, rather than computers. This will change the nature of the industry and of its customer base.

Over the longer term, Osborne sees the microcomputer industry engulfing both the entire minicomputer industry and most of the large mainframe computer industry. Needless to say, this will generate profound shock waves that will fundamentally alter the industry and its customer base. In the more distant future, Adam predicts that the self-programming computer will reduce computer programming to a level of simplicity where the average computer user can become “computer literate.” And, he suggests, that will end computer programming as a profession.



Computer Faire, Box 1579, Palo Alto CA 94302

ELECTRONIC EXPERIMENTERS HANDBOOK TO BE GIVEN AWAY AT THE FAIRE

Popular Electronics will distribute 5,000 free copies of their *Electronic Experimenters Handbook* — the 1979 edition — at the Los Angeles Computer Faire, Nov. 3-5. Those attending the Computer Faire may be particularly interested in the 39-page featured Microcomputer Product Directory — a comprehensive listing including photographs, specifications, and product prices.

Popular Electronics has a 25-year history, during which it has introduced the consumer to a variety of digital technology products including the ALF and — in January of 1975 — the MITS Altair, which marked the birth of the hobby microcomputer.

Joe Messics, publisher of *Popular Electronics*, and members of his staff will attend the 3rd Computer Faire, and will be available to meet with members of the industry and with their readers.

Conference Session

HIGH QUALITY DIRECT MUSIC SYNTHESIS USING MICROPROCESSORS

Hal Chamberlin, a well known experimenter in computer music, will discuss “High Quality Direct Music Synthesis Using Microprocessors.” He has said (with regard to microcomputer music synthesizers), “If these machines are to have any music value whatever, they must at least be able to play multipart harmony with a variety of easy to listen to timbres.”

He will present two alternatives to achieve this end, one way which is very expensive, and another, called “direct synthesis” which is easily accomplished with microcomputers.

This tutorial will focus on the mechanics of the “direct synthesis” technique; its hardware, software, and limitations. He will conclude the presentation with demonstrations of his work with direct synthesis of music using microcomputers.

Conference Session

A MICROCOMPUTER MUSIC SYNTHESIZER

Henry L. Pfister will discuss “A Microcomputer Music Synthesizer” at the 3rd West Coast Computer Faire. He will present a system of his own design and construction, that uses a KIM-1 monitor, Tiny BASIC, an assembler, an editor, and real time I/O subroutines for music synthesis.

Pfister is an assistant Professor of Engineering at the University of Southern California where he teaches Operations Research and Systems Engineering. His specialty is complex real time systems. He has developed the on-board microprocessor for the GPS Navigation Satellite System. He has also emulated microprocessor systems using bit-slice devices.

Conference Session

AN APPROACH TO VERY LOW COST COMPUTER VOICE INPUT TO BE PRESENTED

“Compuvox,” a very low cost computer voice input system using a novel approach based on sentence rather than word recognition will be discussed by Bill Georgiou of Microsignal.

A sentence recognizer discriminates between sentences on the basis of the number and duration of words within a sentence. The actual meaning of the words is not important, allowing the user to select the most descriptive words for a given situation without limited vocabulary constraints. An application where Compuvox performs very well is motion control in interactive video games. In addition, it can be used as a low cost, readily available sound interface to computers for a variety of applications not related to speech.

A NEW GUIDE DETAILS PROFITABLE USES OF PERSONAL COMPUTERS

The profitable uses of personal computers are detailed in a new book just published by Hayden Book Company, Inc., entitled *How to Profit from your Personal Computer: Professional, Business, and Home Applications*, by T. G. Lewis.

This guide will be useful to the small business owner or professional who is now overwhelmed with paperwork and wishes a simpler system. It details the many uses of personal computers in common business applications such as accounting, handling payrolls, managing inventory, and sorting mailing lists. It also describes the many home uses of personal computers including home protection, controlling electrical devices, and budgets.

The book includes actual programs in BASIC to illustrate the techniques for profiting from the personal computer. And it includes blue-prints for each program — a unique feature that gives a practical method for checking “program correctness.” The book uses terms, notations, and techniques commonly used by programmers.

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RENO TO HOST 4th CONFERENCE ON GAMBLING

Recently, Professor William Eadington, Professor of Economics at the University of Nevada, Reno, has put out a call for papers and participants for the Fourth Conference on Gambling.

It will be held at the new MGM-Grand Hotel in Reno, Nevada, December 17-19 of this year.

This year, as in previous years, the conference promises to be an exciting event, and any serious student of gambling should plan to attend.

Anyone wishing to present a paper, should submit two copies as soon as possible to:

Professor William Eadington
Program Coordinator
Bureau of Business & Economics Research
University of Nevada, Reno
Reno, Nevada 89557
Phone: (702) 784-6850.

Conference Session

COMPUTER-AIDED INSTRUCTION FOR HOME USE

"CAI in the Home Marketplace" will be presented by Silas Warner. He feels that CAI (computer-assisted instruction), as it has appeared in schools and universities, has not been utilized to its full potential. Therefore, with the boom in home computers, Warner feels that the "new place" for CAI will be in the home.

However, he finds problems with the languages that are available on many of the small computers, in that they are unable to adequately process input from the user. Thus, Warner has been extending the use of a language that has already been developed for CAI, PILOT. His talk will explain his use and modifications of PILOT to work on his Apple II computer.

Conference Session

DATABASE APPROACH TO SMALL BUSINESS SYSTEMS

Dr. Richard D. Hackathorn will discuss a "Database Approach to Small Business Systems." He recognizes that database management systems (DBMS) are common on large-scale computers. However, the recent entry of small scale computers into the marketplace has created a demand for the implementation of database management for them as well.

Hackathorn's talk will present the principles of database management systems and will show how these concepts are "very important to the design and operation of small business systems." He will also explain how database management systems have become cost effective for their usage in small business systems. He will conclude with recommendations to systems designers.

PERSONAL SYSTEMS CONSULTING OFFERS EXIDY'S PS-80

Personal Systems Consulting is now marketing a new personal computer manufactured by Exidy, Inc. through a network of independent consultants. Identified as the PS-80, the 8K, 16K, and 32K RAM versions each have a full parallel port, RS-232 serial port and an S-100 expansion connector allowing interfacing to a full line of printers, flexible and hard disk and additional memory.

The unit features a full upper/lower case, graphic key board with a 16 key numeric pad. A 4K byte PROM monitor provides control functions while languages and application packages can be changed by simply plugging in an 8K PROM cartridge conveniently packaged in an 8-track tape case.

For home use, a dual cassette capability is provided allowing remote on-off and recording and reading at 300 or 1200 baud. A video out port channels 64 characters by 30 lines to a CRT monitor or converted tv receiver or modulated tv receiver. Up to 128 graphic characters can be user-defined with 240 vertical by 512 horizontal points of resolution.

"Our intention in marketing this system is to allow EDP personnel the opportunity to capitalize on their expertise and compete with retailers who have no previous EDP experience," says PSC president, Mike Flynn. For more information, contact Personal Systems Consulting, Box 20286, El Cajon CA 92021; (714) 443-5353.

Dated: 78Sep15



Conference Session

THE ECONOMICS OF PURCHASING A SMALL COMPUTER

Casimir Klimasauskas will detail "The Economics of Purchasing a Small Computer" at the Computer Faire. He will describe a systematic method for establishing the cost-effectiveness of converting various manual systems to run on a small computer. He will attempt to point out pitfalls often encountered. Procedures minimizing the chances for failure will also be suggested.

This presentation is directed primarily to the small businessperson with or without data processing experience. It will provide an overview of the process involved in successfully choosing and implementing a data processing system.

Conference Session

COMPUTERS FOR USE IN TELECONFERENCING

"Automatic Conflict Resolution in Group Conferencing" is the topic to be examined by David Stodolsky at the Computer Faire. He states that conflicts over allocation of turns to speakers often occur in both formal and informal conferencing. An automatic conflict resolution mechanism, which combined anonymous inputs using preprogrammed rules, was demonstrated in a telephone-based conferencing problem-solving experiment. Stodolsky will speak about this experiment and how this approach to group experimentation yields significant methodological advantages.

Conference Session

CBBS MANUAL

In a talk entitled, "CBBS Manual," Dave Caulkins will present the details and description of a Community Bulletin Board System.

Caulkins is the coordinator of the PCNET Project on networking personal computers, and an experienced researcher and practitioner in the area of computer communications.

Conference Session

COMPUTER SIMULATIONS IN THE COLLEGE CLASSROOM

Dr. Gene Steinhauer of the Psychology Department at California State University at Fresno, California, will speak at the 3rd West Coast Computer Faire. He will discuss "Computer Simulations in the College Classroom: Implementation and Evaluation." He will outline a variety of computer simulations he has used in teaching courses on research methods in psychology. He will mention successes of the simulations, some of the technical details, and the learning situations that are represented.

The reactions of the students to the simulated learning have been overwhelmingly positive. The faculty considers the simulated learning useful because it allows faculty to expose the students to a wider variety of psychological phenomena and methods "... at a lower cost than purchasing the traditional equipment used in those demonstrations."

Dr. Steinhauer has noted that the computing power behind the simulations has been a PDP 11/34 as well as several microcomputers. He says, "Microprocessors are certainly well within the budget limitations of academic institutions and can probably enhance the quality and effectiveness of the education process."

NORTH STAR OFFERS DOUBLE DENSITY MICRO FLOPPIES WITH NO PRICE INCREASE

All North Star Horizon computers and Micro Disk Systems shipped starting in late November will include a new double-density controller board and a double-density certified Shugart SA-400 minifloppy disk drive. Thus, 180,000 bytes can be accessed on each diskette. Furthermore, higher capacity disk drives can be used with the new controller board, as they become available.

North Star BASIC and DOS have been upgraded to accommodate the increased capacity. Programs written for single-density North Star systems will operate with little or no change on the double-density systems. Furthermore, disk drives purchased with single-density North Star systems can be used.

The Horizon computer, in the basic configuration, includes a Z80 processor, 16K bytes of RAM, a serial I/O port and one minifloppy disk drive, for \$1599 kit and \$1899 assembled.

The Micro Disk System includes an S-100 bus controller, one minifloppy disk drive, cabling and connectors and power regulation circuitry.

Both the Horizon and MDS systems include North Star BASIC, DOS and Monitor on diskette, as well as complete hardware and software documentation.

For further information, contact a retail computer store or North Star Computers, Inc. 2547 Ninth St, Berkeley CA 94710, (415) 549-0858.

Dated: 78 Sep.

Conference Session

IMPLEMENTING A SMALL COMPUTER SYSTEM DETAILED FOR BUSINESSPEOPLE

Casimir Klimasauskas will present a talk at the Computer Faire on "Implementing a Small Computer System." This talk is directed to managers of small businesses who are going through the process of selecting and installing a small business computer system.

Many helpful hints will be discussed. Klimasauskas feels that there are a number of aspects that management must consider when choosing a computer system. Involved are planning, hardware installation, software development, security measures, people, and management. He notes that, for the manager, "successfully dealing with a small computer system demands an understanding of some of the pitfalls peculiar to computers."

Conference Session

THE NEW CRYPTOGRAPHY: PUBLIC-KEY CRYPTO SYSTEMS

"The New Cryptography: Public-Key Crypto Systems," will be discussed by Ralph C. Merkle. He claims that a major problem in doing business by telephone has now been solved. He will detail how people are now able to use a "digital signature" over the phone lines to sign a contract. He also claims that the digital signatures are fully equivalent to written signatures and can be used to "prove that the signer saw and agreed to the signed contract."

Merkle will also present the solution to the problem of key distribution. He will outline how callers can now agree on a secret key over a public phone line, even though no prior secret arrangements have been made.

CHESS FOR PET, TRS-80, APPLE

MICROCHESS is the culmination of two years of chessplaying program development by Peter Jennings Jennings, author of the famous 1K byte chess program for the KIM-1. MICROCHESS 2.0 for 8K PETs and 16K APPLES, in 6502 machine language, offers eight levels of play to suit everyone from the beginner, learning chess, to the serious player. It examines positions as many as six moves ahead, and includes a chess clock for tournament play. MICROCHESS 1.5 for 4K TRS-80s, in Z-80 machine language, offers three levels of play. Both Level I and Level II versions are included and can be loaded on any TRS-80 without TBUG. MICROCHESS checks every move for legality and displays the current position on a graphic chessboard. You can play White or Black, set up and play from special board positions, or even watch the computer play against itself! MICROCHESS is priced at \$19.95 and is available from computer stores nationwide or by mail from Personal Software, Box 136, Cambridge MA 02138, phone (617) 783-0694.

Received: 78 Sep 5



WANT ADS

Want Ads are being accepted for publication in the Silicon Gulch Gazette. Please submit the ad copy, typed and double-spaced, and payment of \$40. Up to one column-inch of your copy will be typeset, and will appear in the next available issue of the Gazette. If your ad exceeds one column-inch, we will edit it at our discretion. The \$40 is a minimum charge. Each press run of the Gazette consists of at least 50,000 copies (this issue is 50,000), distributed without charge to individuals nationwide and in bulk to stores and organizations.

PET USER GROUP Share and exchange applications, programs, and hardware expansion techniques. The PET User Notes includes many program listings and notes on using BASIC and machine language as well as a list of programs available on tape for exchange. \$5 U.S. (\$10 overseas air mail) for 6 issues. PET User Group; PO Box 371; Montgomeryville PA 18936.

WANT TO BUY—Crashed or surplus Magnetic Heads from hard disc drive memories. Interested in Calcomp, Diablo, Wangco, IBM and all other types. Premium prices paid for Control Data Corp. heads. Search thru those surplus or salvage shops for these valuable recyclable components. Contact Jon Anderson at INFOEXTEND (805) 964-6828 x453 with any details. Finder's fee negotiated.

OVER 150 EXHIBIT SPACES ALREADY
TAKEN AT L.A. FAIRE,
AND IT'S STILL SIX WEEKS AWAY

As of the writing of this article, over 150 spaces had already been rented in the Exposition area of the 3rd West Coast Computer Faire . . . and the Faire is still a month and a half away. In comparison, the First Faire — held in San Francisco in April, 1977, drawing almost 13,000 computer enthusiasts — had 205 exhibits *by Faire time*. The Second Faire — in San Jose last March, which drew over 14,000 — shoehorned in a total of 197 exhibits, and published a list of over 30 exhibitors who requested space after all spaces had been rented.

The following is a list of the already contracted exhibitors:

- A.B.S. Business Machines
- Agile Corporation
- AHH Shirt
- Alpha Micro
- Altos Computer Systems
- Applied Economic Analysis
- Artec Electronics Inc
- Kathryn Atwood Enterprises
- Base 2 Inc.
- Business Resource Service
- BYTE Publications
- C.P.S. Inc.
- California Digital
- Career Research Systems Inc.
- Cherry Electrical Products Corp.
- CLOAD Magazine
- Compumax Associates
- Computalker Consultants
- Computer Headware
- Computer Interface Technology
- The Computer Room — San Jose
- Computer Sciences Corp.
- The Computer Store — Santa Monica
- COMPUTER TEXTile
- Creative Computing
- DAIR Computer Systems
- Delta Products S-44
- Digital Equipment Corp.
- Digital Research
- dilithium/Matrix Publishers
- Electronic Systems
- Electronics Warehouse Inc.
- Entrepreneur Press
- Forth Interest Group
- GIMIX Inc.
- GRI Computer Corp
- Hayden Book Co. Inc.
- Heathkit Electronic Centers—Units of Schlumberger Products Corp.
- Hobby World Electronics
- Houston Instrument
- HUH Electronics
- IBM Corporation
- Image Resource
- Information Terminals Corp.
- Integrated Circuits, Unlimited
- Interface Age Magazine
- Jade Computer Products Inc.
- Kilobaud
- Malibu Design Group Inc.
- Marinchip Systems
- MECA
- Micro Computer Devices
- Micro Technology Unlimited
- Micro-Ap
- MICRO-TERM Inc.

TAX RETURN PREPARATION
PROGRAMS FOR MICROS

- o DICOMP SOFTWARE for CPA's and professional tax preparers. Sophisticated, complex system of programs, with data files, "chaining," 32K required; prints in format on IRS 1040; many related schedules. User's manual, detailed, descriptive.
- o DICOMP TAXPAK for individual or hobbyist home user. Computes IRS 1040 (second annual release). Simple, straightforward program displays results at the screen (not on hard copy). Flyer gives easy-to-follow instructions.
- o Released for sale December 15, 1978
- o Language Northstar Basic
- o Northstar disk drive
- o For further information write to:

DICOMP, BOX 8272
ROWLAND HEIGHTS, CA
(213-912-1014) 91748

GROUP FORMING ON LEGISLATION
& COMPUTERS

This announcement is a call for volunteers to form a study and action group concentrating —for now— on issues raised by the U.S. Senate Bill S1766 (the Computer Crime Bill), and later, on specific issues involving computer privacy and government legislation and regulation. The group will need computer professionals, attorneys, social scientists, civil libertarians, and men and women of good will, who are concerned about government intentions towards privacy, civil liberties, and the computer in society.

This group will be an independent competency center that will authoritatively answer technical, legal, and social questions arising due to the government's indecorous interest in computers and record keeping.

Contact John K. Taber, 609 Meadow Ave., Santa Clara CA 95051.

Conference Session

THE RIBICOFF BILL TO BE
ANALYZED AT THE FAIRE

John S. James will discuss Senate Bill 1766 also known as the Ribicoff Bill. This bill, now under consideration in the Senate, would provide up to 15 years imprisonment for any use "without authorization" of any computer, network, or software operated by any organization operating in interstate commerce. Among other things, nonprofit personal projects by employees would be illegal, such as unsponsored research or education, club mailing lists, or game playing.

James draws on his experience as a professional computer programmer and systems analyst to discuss the impact of such a law on industry working conditions and the development of professional skills.

James has also organized and will chair the Panel on "Potential Legislation Affecting Computer Owners and Users."

A PORTABLE COMPILER FOR
A PASCAL-LIKE LANGUAGE

"A Portable Compiler for a PASCAL-like Language" will be described by Mark Green. He will treat the problem of program portability. Three solutions to the problem will be presented. As well, a particular piece of portable software developed for the Micro Pascal Compiler will be examined. Construction and implementation of abstract machines will also be discussed.

- MicroAge
- Microbiz
- Microdasys
- Micropolis Corp.
- MicroPro
- Microsette Co.
- Microtronix Inc.
- Midwest Scientific Inst.
- 3M Company — Data Recording Products
- MVT Microcomputer Systems, Inc.
- NCE/CompuMart, Inc.
- The Net Works
- Newtech Computer Systems, Inc.
- North Star Computers
- Occupational Computing Company
- Oliver Advanced Engineering
- Omnisystems Div., Omni Computer Corp.
- OpAmp Technical Bookstore
- Osborne & Associates
- Pacific Office Systems
- Page Digital Electronics
- People's Computer Company
- Personal Computing Magazine
- Personal Software
- Personal Systems Consulting
- Problem Solver Systems, Inc.
- PROGRAMMA Consultants
- Quality Software
- Quest Electronics
- Ramsey Electronics
- Rockwell Microelectronic Devices
- SEMIONICS
- Smoke Signal Broadcasting
- Softape
- The Software Exchange
- The Software Works, Inc.
- Solid State Music
- Southern California Computer Dealer Association
- Structured Systems Group, Inc.
- Summagraphics Corp.
- Sybex, Inc.
- Szerlip Enterprises
- Technical Systems Consultants, Inc.
- TELPAR, Inc.
- Time-Life Books
- TRS-80 Computing
- Vector Graphics, Inc.
- Video Brain Computer Co.
- Votrax — JHM Marketing Assoc.
- Waterborne Environmental Labs
- WEATHERFORD

Conference Session

MEDICAL EXPERTS TO EXAMINE
BIOMEDICAL MICROS

Dr. Robert Goff, a Research Associate at Children's Hospital in Oakland, and President of the Berkeley Medical Data Association, has organized a panel of biomedical computing specialists to discuss, "The Capabilities of Microcomputers in Health Care Applications. What Costs? What Sacrifices?" The panelists will include Dr. Goff, and:

Dr. Ronald Henley, Assistant Director, Office of Medical Information Science, University of California Medical Center, San Francisco,

Dr. Roger Littge, Medical Consultant to Lawrence Hall of Science, and Vice President of the Berkeley Medical Data Association,

Robert Brehm, President, Promedics Data Corporation,

Dr. Ken A. McGinnis, Consultant, Creative Data Processing, and

Dr. George Krucik, Consultant, Patterson Dental Supply.

Conference Session

MICROCOMPUTER APPLICATIONS FOR
BIOMEDICAL INSTRUMENTATION

Robert C. A. Goff, in his talk about "Micro-computer Applications for Biomedical Instrumentation: A Monitor for the Corning M-175 Blood Gas Analyzer," discusses new biomedical instruments that are microprocessor-controlled and which can be equipped with a serial data port for transmitting results and/or receiving control commands.

A microcomputer monitor, developed by Goff, will be used as an example in considering the important aspects of designing software for such a biomedical application. Some of the topics upon which he will touch include: input, handshaking, data access, permanent storage, and choice of a language. Robert Goff will also offer some futuristic speculation in which he sees the microcomputer as doing more than just monitoring health care of hospital patients.

Conference Session

MICROCOMPUTER FEASIBILITY IN
THE HOSPITAL SETTING

Robert C.A. Goff will give a talk entitled "Microcomputer Feasibility in the Hospital Setting."

Noting that in the past, hospital administrations have been reticent to use microcomputers where minicomputers have become acceptable, Goff, and several other staff members of the Children's Hospital of Oakland, California, developed a microcomputer system that was used only for feasibility studies.

He will detail that microcomputer system and how it has been used to determine the feasibility of several applications in the Children's Hospital.

Conference Session

MICROCOMPUTER PROGRAM
CORRECTNESS TO BE DISCUSSED

Since mathematics and computer science are so intimately tied together, why is there not more "mathematical flavor" to computer science? Why are not more things "proved" about computer programs?

W.D. Maurer will discuss "Microcomputer Program Correctness" showing that it is possible to prove things about computer programs, even on micros. This talk will apply the methods of "proving things" to microcomputer programs.

Dr. Maurer says: "We will make a number of extensions of known methods of program proving." Maurer notes that one of the more important things to be proved about a program is that it is *correct*. Guidelines for "correct," "partially correct," "clean," and "terminating," will be discussed.

Conference Session

BUSINESS MICROCOMPUTERS:
FRAUD OR REALITY?

Rodnay Zaks, a well-known lecturer in the micro field, will discuss microcomputers as business systems in his talk entitled, "Business Microcomputers: Fraud or Reality?" He notes that microcomputers have been widely advertised as applicable to small businesses. Zaks comments, "For the first time, hardware is available for less than \$10,000 which is fully capable of providing the functions required for the actual automation of a small business." However, Zaks queries: "Does it *really* provide the capability?" The answer to this question is the basis of his discussion. He will touch on the requirements of business computing, the hardware, the software, and the real advantages of micro-computer systems.



Centrally-located L.A. Convention Center to be site of 3rd Computer Faire

HILTON HOTEL IS H.Q. FOR 3rd FAIRE

The Faire has arranged special Computer Faire discounts at three hotels in the vicinity of the L.A. Convention Center. If you have not yet made your reservations, you should do so soon. The L.A. Hilton is the Headquarters Hotel for the Faire.

Conference Session

PERSONAL COMPUTING APPLICATIONS FOR ATTORNEYS & COURT REPORTERS

Douglas W. DuBrul will outline several "Unique Personal Computing Applications for Attorneys & Court Reporters." He will emphasize two applications, computer-aided transcription and key-word indexing in his talk. Some of the problems involved in both of these will be discussed.

Conference Session

COMPUTER SECURITY EXPERT TO SPEAK IN LEGISLATION SECTION

Computer security expert Robert P. Abbott will address the "Section and Panel on Potential Legislation Affecting Computer Owners & Users" at the Faire. Mr. Abbott has been a computer security consultant for law-enforcement, banking, and other industries, and also has extensive experience in biomedical computer applications and in timesharing systems. He is actively engaged in conducting general EDP audits, software audits, and the production of programming tools to aid the EDP auditor.

Currently Mr. Abbott is President of EDP Audit Controls, Inc., of Oakland, California.

Conference Session

CHANGING PARADIGMS AND THE COMPUTER

"Changing Paradigms and the Computer" expresses a vision of the future in which our culture will experience "a major paradigm shift." Carl Townsend comments that the Gutenberg Press made the flow of information possible, and now the microcomputer will allow us to automatically control that flow. He notes, "This will cause radical changes in our political, economic, and educational systems as well as changing our concepts of transportation and communication."

What these changes will be, and how we can use our computers as tools to help create the future we want, will be discussed in his presentation.

COMPUTER TEXTile OFFERS SPRINT 5's

COMPUTER TEXTile announces that it is now carrying the new Qume Sprint 5 line of daisywheel printing terminals and accessories. The Sprint 5 is available in both 45 and 55 CPS versions, both with and without keyboards. Each Sprint 5 model provides high quality word-processing and plotting printouts. Over 50 different daisywheel type fonts are available. Pricing is as follows:

Model	Price
45 CPS, keyboard	\$2995
55 CPS, keyboard	\$3295
45 CPS, receive only	\$2695
55 CPS, receive only	\$2895
Forms tractor	\$210
Pin Feed Platen	\$160

Delivery is from stock to 90 days, depending on model and configuration. Includes 120 day factory warranty. Tax and shipping not included.

COMPUTER TEXTile, 10960 Wilshire Blvd, Suite 1504, Los Angeles CA 90024; (213) 477-2196.

Dated: 78Aug17

Conference Session

PHILOSOPHICAL & PRACTICAL CONSIDERATIONS OF COPYRIGHTING SOFTWARE TO BE EXAMINED

Attorney Kenneth Widelitz will present a talk entitled "Copyright and Software: Some Philosophical and Practical Considerations." He will discuss the final report of the National Commission on New Technological Uses of Copyrighted Works (CONTU). A look at the Copyright Act of 1976 will also be included.

Conference Session

LOOK OUT! S1766 MAY BE COMING

A talk "On Computer Crime Bill S1766" will be given by John Taber. The law was apparently written for the sponsoring Senators by two attorneys, neither of whom had much experience with computers and their daily uses in business and government. Taber describes the bill as "dangerously broad for what it does cover." He adds that the areas that it *should* consider are neglected, and other parts of the bill are completely unnecessary!

John Taber is a staff programmer for IBM. He has worked on the development of APL and is presently working on a database query system.

Conference Session

BASIC & THE BUSINESS COMMUNITY

Richard E. Barnhart will propose that BASIC offers little of positive value in a mid- or large-size data processing shop. He suggests that as a learning tool it is quite valuable, but its syntax, I/O, and report writing capabilities are too limited for most business applications. In some areas of business, though, BASIC is being used successfully today. In the near future there promises to be a significant increase in the use of BASIC in business — but outside of data processing shops. Barnhart will discuss some of the interesting implications this holds for both hobbyist and "professional" programmers.

Conference Session

USING FUTURES RESEARCH METHODS TO ASSESS POLICY IMPLICATIONS OF THE PERSONAL COMPUTER

Personal computers have potential benefits in education, business, health, and other fields as well as posing potential difficulties in privacy, security, etc. Professor Paul Gray of USC's Graduate School of Business Administration will discuss a variety of futures analysis techniques. These will include Delphi and cross-impact methods which will be used to explore the policy implications of this new, personal computing technology.

RETAILERS: REQUEST RETAILER RIBBONS FOR YOUR BADGES (TO BE ALLOWED ADMISSION SUNDAY MORNING)

Sunday morning (Nov. 5), from 10am to noon, the exhibit area will be open exclusively to retailers, exhibitors, and exhibitors' guests. If you are a retailer (or distributor), please write to us on letterhead stationery letting us know. We will be happy to furnish you with a "Retailers" ribbon that you may attach to your registration badge, thereby gaining admission to the Sunday morning session. (You might also use that same letter to order bulk quantities of the *Gazette* — without cost, and order bulk preregistrations at discount prices to sell in your store. See details elsewhere, herein).

Conference Session

PETing PROVIDES SOLUTION TO UNIVERSITY PROBLEM

Ronald J. MacKinnon, an Associate Professor of Mathematics at St. Francis Xavier University, will present "A PET Solution to a University Problem." Noting that many people have suggested that microcomputers are very limited in what they can offer to education, MacKinnon, in a way, will come to the defense of microcomputers. He will explain how St. Francis Xavier University was able to make use of six Commodore PET's to solve a problem there. He will describe the computer laboratory set up for the PET's, and will detail how they are used.

Conference Session

MICROS IN SCHOOL TESTING & EVALUATION

In a discussion of "A School's New Staff Member" Gerald Hasty will talk about using microcomputers in schools for testing and evaluation. He will present several guidelines for choosing an accurate evaluative measuring device.

Conference Session

COMPUTER-ASSISTED EDUCATIONAL TEST CONSTRUCTION

A paper written at the Teaching Resource Center of the University of California at Davis will be presented by Eli Cohen, a Measurement & Evaluation Specialist for the Teaching Resource Center. The title of the talk will be "Software Considerations in Designing Computer-Assisted Test Constructions."

Conference Session

A COMPREHENSIVE PUPIL PERSONNEL ACCOUNTING SYSTEM UTILIZING MICROCOMPUTER SYSTEMS

Dr. Melvin L. Zeddies states that to date, most applications of computers in the field of education have been in the area of instruction. However, the areas of administration, counseling, and combinations of other areas lend themselves to benefit from computer systems as well. Dr. Zeddies will discuss "A Comprehensive Pupil Personnel Accounting System Utilizing Microcomputer Systems." He will detail the increased efficiency resulting from a small computer system introduced into a school administration office, and the even more noticeable benefits when the system is applied to the entire school district. A must for school administrators!

Conference Session

THE PET VISITS HUNTINGTON

The PET graphics capability permits a significant improvement in many programs. The Huntington II programs, POP and POLUTE, have been modified to take advantage of these graphics.

An A-to-D converter designed for the PET permits inputs from joysticks and from potentiometers. This capability permits more realistic laboratory simulations as illustrated by the Huntington II simulation, CHARGE. There will be live demonstrations of these modified programs on a PET. The graphic capability of the PET permits the development of discovery learning (or laboratory experiences) in mathematics. This will be illustrated with a coordinate geometry program called POINTS.

Two interesting and challenging games called "Tic Tac Pet" and "High Count" which provide learning experiences in algebra will be described.

All three of these programs will be demonstrated on a PET. The PET teaches English. The graphic and manipulation capabilities of the PET have been exploited to construct programs in English called SPLL, PUNC, and HYPHEN which respectively teach spelling and word meaning, punctuation of sentences, and syllabification of multisyllable words. These programs will be demonstrated on a PET, and discussed in detail by Professor Lud Braun from SUNY's College of Engineering.

Conference Session

A COLORADO COMMUNITY COMPUTER FACILITY TO BE DESCRIBED

Stephan K. Elliott will present a short talk on "Boulder, Colorado's Community Computer." They installed their system, an Alpha Micro AM-100 system in November, 1977. It has 64K of random access memory, four Persci floppy drives, four CRT terminals, two hard copy terminals, and an auto-dial auto-answer modem.

Uses of the computer, and details of their programs are included in the article. Elliott will also discuss a proposal for providing greater community access via coin-operated terminals all over town.

COMPUTER & ELECTRONICS CLUBS & ASSOCIATIONS MAY PURCHASE BLOCKS OF FAIRE PREREG BADGES AT A 16% DISCOUNT

Computer clubs and computer and electronics professional associations -- e.g., ACM and IEEE Chapters -- may purchase blocks of Computer Faire preregistration forms and admission badges at a delightfully deflationary discount. The retail fees and fees at the door will be \$6, providing registration for all three days of the Faire. Clubs and associations may purchase a block of 20 for \$100 -- \$5 each. The organizations can either use these to raise funds for the organization -- purchasing them at \$100 and selling them for \$120 -- or, they can pass the savings along to their club members.

Organizations may purchase as many blocks of 20 as they wish. Such purchases must be prepaid (with the Faire paying shipping charges), or may be shipped C.O.D., with the organization paying the C.O.D. and shipping charges. If the organization ends up with undistributed registrations, up to 20% of the quantity they ordered may be turned in to the Computer Faire up to November 2nd -- the *day before* the first show day -- for a full refund (\$5 each for up to 20% of the blocks purchased). Forms and badges will be available for shipment on or before October 1st, five weeks prior to the Faire.

Organizations or organization members interested in details of this arrangement should contact the Computer Faire, Box 1579, Palo Alto CA 94302, (415)851-7075, as soon as possible.

MOBS DRAWN TO SOUTHERN CALIFORNIA COMPUTER/ELECTRONIC SHOWS

Over 42,000 attended WESCON, September, 1978.

Over 57,000 attended NCC'78, June, 1978.

Mini/Micro -- an "exclusively industry" show -- drew almost 10,000 to their November, 1977 convention.

We believe it reasonable to project 12,000-15,000 attendance at the 3rd West Coast Computer Faire in the L.A. Convention Center, November 3-5, 1978. We have a top-quality reputation. Won't you join us?

Attractions Quick Facts

DISNEYLAND, 1313 Harbor Blvd, Anaheim. (714) 533-4456 or (213) 626-8605. Open daily. General admission: adults \$5.50, 12-17 yrs. \$4.50, under 12 \$2.50. Admission + 11 rides: adults \$7, 12-17 yrs. \$6.50, under 12 \$6.

KNOTT'S BERRY FARM, 8039 Beach Blvd, Buena Park. (714) 827-1776. Open daily. General admission: adults \$5.25, 3-11 yrs. \$3.75, under 3 free. Admission + 11 rides: adults \$6.75, 3-11 yrs. \$5.75, under 3 free.

LION COUNTRY SAFARI, Irvine Center Drive, Irvine. (714) 837-1200. (213) 485-8951. Open daily from 9:00 a.m. Admission: adults \$4.95, 3-11 yrs. \$3.25, under 3 free.

MAGIC MOUNTAIN, Magic Mountain Parkway, Valencia. (213) 367-2203, (805) 255-4111. Open daily. Admission: adults \$8.50, 3-11 yrs. \$7.50, under 3 free.

MARINELAND, Rancho Palos Verdes. (213) 541-5663. Open daily. Admission: adults \$5.50, 4-11 yrs. \$3.75, under 4 free.

MOVIELAND WAX MUSEUM, 7711 Beach Blvd, Buena Park. (714) 522-1154, (213) 583-8025. Open daily. Admission: adults \$4.95, 4-11 yrs. \$2.75, under 4 free.

NBC STUDIOS TOUR, 3000 W. Alameda Ave., Burbank. (213) 845-7000. Tours daily from 10 a.m. Admission: adults \$2.10, under 12 yrs. \$1.40.

QUEEN MARY TOUR, Pier J, Long Beach. (213) 435-4747. Open daily from 10 a.m. Admission for tour: adults \$5, 5-11 yrs. \$1.75, under 5 free.

UNIVERSAL STUDIOS TOUR, 100 Universal City Plaza, Universal City. (213) 985-8687. Open daily from 8 a.m. Admission: adults \$6.75, 12-16 yrs. \$5.75, 5-11 yrs. \$4.75, under 5 free.

Hours and prices effective June-Sept. 1978

Greater Los Angeles
Visitors and Convention Bureau

505 South Flower Street • Los Angeles, California 90071



33% LOWER FEES FOR 3rd COMPUTER FAIRE

The registration fee for the Third West Coast Computer Faire -- covering admission to all exhibits and the Faire Conference Program for all three days of the November 3-5 Computer Faire -- will be \$6. This is a significant reduction from the registration charge of \$8-\$9 for the First and Second Faires.

This reduction was the Faire's response to the maturing of the low-cost computer marketplace, and to feedback from attendees at previous Faires and from exhibitors. In the beginning, when the industry was struggling through its infancy, it was appropriate to equally distribute the costs of a Computer Faire between the struggling companies and the struggling consumers. Now, however, the marketplace has matured, and the companies deriving the profit from that marketplace are better able to carry a larger portion of the financial burden of conducting such major conferences and expositions that are of explicit benefit to them. In fact, several of the companies have pointed this out, and proposed that registration fees be reduced, understanding that their exhibition fees would be somewhat increased.

Registration forms and badges will be available at the L.A. Convention Center for \$6, throughout show hours, Friday through Sunday, November 3-5. They will also be available through many retail computer stores and electronics distributors, allowing attendees to obtain their admission badges early and just walk right in -- dodging the registration lines on-site, during the Faire show days. Contact your local computer or electronics store for further information. The next issue of the *Gazette* will carry a listing of many of the stores offering such preregistrations.

NCE/COMPUMART OFFERS 8-LEVEL RS-232 READER/PUNCH

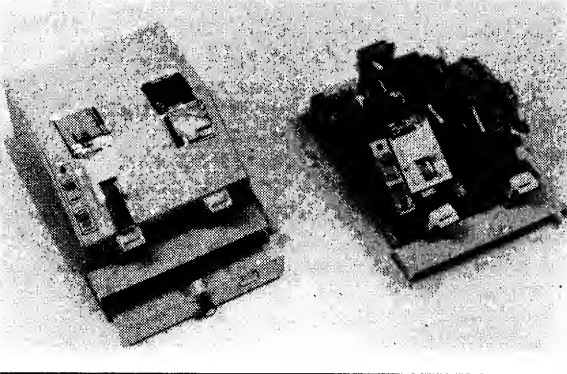
What do you do with a warehouse-full of still-in-the-box paper tape reader/punches? The answer: add the electronics to make them usable in any data communications or computer environment.

NCE/CompuMart had the opportunity to purchase many hundreds of unused reader/punches consigned to a spare parts warehouse. After selling some to experimenters and hobbyists who adapted them for computer and data communications applications, NCE realized that users without the ability to modify the punches would use them already interfaced and connected to a power supply.

NCE has interfaced the unit to operate with a standard acoustic coupler or an RS-232-compatible interface. A version of this unit with a parallel interface is also available. The interface converts the mechanical reader contact inputs and punch solenoid outputs to RS-232 levels and ASCII codes for easy connection to a computer. It can even be used as a remote paper tape terminal using an RS-232 acoustic coupler. Applications include typesetting, numeric control, program tape loading and tape generation/duplication. Documentation is provided for operation, adjustment and service.

Ready to plug in, the serial version of the unused units sells for a packaged price of \$895.00, and the parallel model sells for \$695.00 (refurbished reader/punch units are also available for even less). All units are covered by a 90-day parts and labor warranty. For more information contact NCE/CompuMart, Box 8610, Ann Arbor MI 48107, or call toll free at 800-521-1534 to order.

Dated: 78 Aug 30



An Apology

MECHAM & NELSON MISSED SCHEDULED AT 2nd FAIRE

The Faire would like to sincerely apologize to both the speakers and the attendees of the 2nd Computer Faire, held in San Jose last spring, for a scheduling error. According to the Conference Program, distributed at the Faire, Douglas Mecham and Richard Nelson were to present talks concerning "Writing About Computers," on Friday at 1:30pm. Through an administrative error, the Faire incorrectly told the speakers that their session was scheduled for a later time. Thus, they arrived for the time they were told, but too late for the time the Session was scheduled. . . through absolutely no fault of their own.

Computer Faire, Box 1579, Palo Alto CA 94302

PERSONAL COMPUTER INDUSTRY ASSOCIATION MEETINGS SCHEDULED TO BE HELD DURING DALLAS & L.A. SHOWS

After a year or so of sporadic attempts to organize an industry association within the personal computing community, it appears that it may finally be happening. This is being triggered by an increasing awareness of problems and topics of industry-wide interest, and the recognition that many of them can be solved only by widespread cooperation and communication within the industry.

Shelly Howard (Micro Computer Devices) and Dan Meyer (Southwest Technical Products Corp) called an informal manufacturers' meeting during the Personal Computing '78 show in Philadelphia. Attendees included representatives from:

Micro Computer Devices
Southwest Technical Products Corp
Technical Systems Consultants
IMSAI
Otto Electronics
International Microcomputer Corp
Percom
Hemmingway Associates
CMC Marketing
3M(Minnesota Mining & Manufacturing)
Exidy
Compumax
Computalker
Computer Mart Systems of New York

Topics & Problems Outlined

Topics and problems appropriate to be addressed by such an industry association were listed, including:

Show scheduling, support, conflicts, and association endorsement

Definition and adoption of standards, e.g., for a parallel port interface

Statement and adoption of an industry-wide warranty standard as is found in several other industries, e.g. "90 days, parts & labor"

Pooling and exchanging of credit information (pointed out as being legally-touchy but much-needed association function)

And, of course, the problem of getting the association organized and keeping it viable

Dallas Meeting Scheduled

With no dissent being voiced, those attending this informal Philadelphia meeting agreed that it would be desirable to convene a more formal meeting during the International Microcomputer Exposition being held in Dallas, Sep. 29 -- Oct. 1. Harold Mauch (Percom) agreed to arrange the time and place. The Dallas Meeting -- presumed to be the inaugural/organizational meeting of a formal industry association -- has now been scheduled:

Saturday (Sep. 30), 7PM (immediately after exhibits close), Convention Center Conference Room (will be announced over PA system).

Los Angeles Meeting Proposed

The Third West Coast Computer Faire, being held in the Los Angeles Convention Center, Nov. 3-5, will provide further opportunity for the association to meet and address common industry problems. Meeting schedules will be announced in later publications.

These association meetings are *not* restricted to exhibitors at the two shows. They are explicitly for the industry. If you have any questions as to whether or not it will be appropriate for you to participate in the meetings contact:

Dan Meyer
Southwest Technical Products Corp
(512) 344-9778

or

Shelly Howard
Micro Computer Devices
(714) 992-2270

GIMIX OFFERS A "HOUSE-OPERATING SYSTEM"

According to the manufacturer, the House Operating System by Gimix, Inc., is a control system that can be adapted to operate anything from a 1-room apartment to a large industrial plant. It is a turnkey system that can be installed by a trained electrician with little difficulty, and configured by the customer or the dealer to meet the exact requirements of the installation.

The House Operating System is organized around two basic elements: the command to carry out a single function (such as turning on a specific light) and the string, which is a short program to carry out a series of commands. The strings have the ability to carry out some commands based on the state of the environment, and to call in other strings.

A 16-button keypad gives the user full access to the House Operating System. Gimix Relay Driver boards are used to control the electrical devices connected to the system, and the Gimix Opto board can be used to connect to sensors.

For more information, contact Gimix Inc., 1337 W 37th Pl., Chicago IL 60609; (312) 927-5510.

Received: 78Aug25

Gain instant fame and magnificent fortune! Exhibit your delightful devices in the Los Angeles Computer Faire. Call Marguerite for details at (415) 851-7075.

THERE SHOULD BE AN ALL-INDUSTRY ASSOCIATION WITH MANUFACTURER & RETAILER DIVISIONS

The informal Philadelphia meeting described at the left was a "manufacturer's meeting." At the same time there was an equally informal "retailer's meeting" in progress. Yet, many of the problems under discussion were of common interest, and could best be solved by an all-industry association. (Of course, other problems were exclusively-retailer, exclusively-manufacturer, or manufacturer-vs-retailer in character.)

To the extent that we stand together, we more rapidly grow strong and more viable. To the extent that we stand separately, we are each and separately weakened.

Warranty: If an industry-wide standard is to be adopted, the manufacturers must obviously agree to it, however, — most ideally — the retailers should serve as the customer interface for warranty repairs. We need to work together, not separately.

Shows: It is obvious that the manufacturers are going to stop exhibiting at more than 2-4 truly "national" conventions per year. It is equally obvious that a number of "local" shows will continue to be proposed, and would be of value to the local population, local stores, and certainly to the manufacturers. A solution would be for the manufacturers to assist the local retailers — their dealers — in exhibiting in the shows. The manufacturers could furnish extra equipment, literature, and possible exhibits and financial assistance, with the retailers handling arrangements and furnishing booth staffing — the major cost center. Such cooperation would benefit the manufacturer, retailers, and local market.

Standards: Non-captive dealers need interconnectability of components and subsystems in order to best be able to custom-ize systems for their custom-ers (Sorry 'bout that; these fits strike from time to time). Also, since they are in direct contact with the increasingly varied applications environments, they may be the best sources of information about interfacing needs. Yet, it is the manufacturers who must adopt and furnish any such standardized interfacing. Or they can leave it up to newborn competitors, as began in the personal computing industry with MITS products and has continued with independently manufactured subsystems and components for products from such companies as Heath, Commodore, Apple, Tandy/Radio Shack, etc. It is better for us to work together on setting standards, rather than working separately. And, it is generally better to work as a group, than as isolated, random one-to-one communications.

Association Administration: The ideal setup for a national industry association would be for it to hire an "Executive Director" or "Executive Secretary" as is the case with WEMA, IEEE, ACM, etc. Although several local retailers' organizations have come into existence and proven highly valuable, their operation has been limited to monthly meetings and communications — at best — by phone or on-page, typed "quickie" newsletters, doing little more than announcing the next meeting, and that is due only to extra efforts on the part of a few leaders. Neither the manufacturers nor the retailers have the time to devote to careful and productive national-level organization and communication. If separate retailer and manufacturer associations are formed, then each must independently support any such administrative staffing. As an all-industry association with a much larger membership, such administrative costs could thereby be smaller, per member.

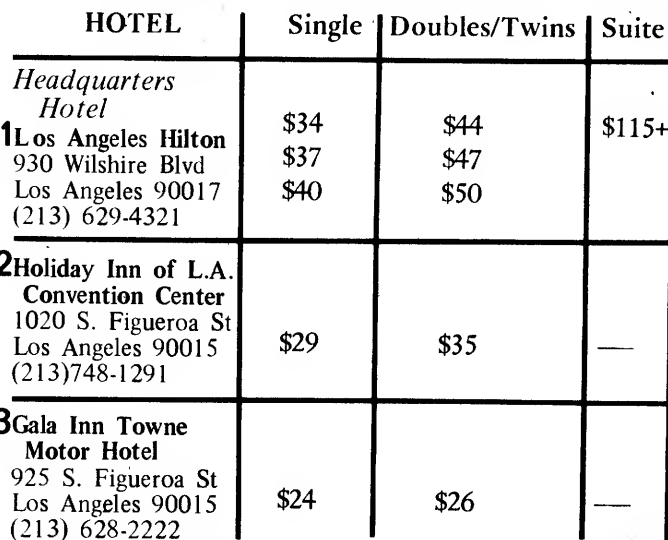
Legislative Voice: Both state and federal legislators are currently considering a plethora of proposals for legislation relating to computer utilization. Some of it appears certain to impact low-cost computing. . . particularly relative to computer telecommunications and proprietary software protection. To date, the legislators have — almost exclusively — heard only from large mainframe manufacturers and big industrial and DP users. We know *our* computer industry subculture and marketplace has different, unusual, and sometimes conflicting characteristics relative to the Brontosaurus Boys. To be better heard, we should best speak as a large and unified association, rather than several small and isolated groups.

Let us stand together, rather than risking falling apart.

Please telephone or send your reservations **directly** to the hotel of your choice, and request the special **Computer Faire** rate. (Special rates have been arranged with the hotels listed in the chart below.) These hotels are within a few blocks of the Los Angeles Convention Center. We suggest that you complete your reservations soon in order to obtain reservations of your choice.

Please confirm all arrangements and rates in advance with your hotel to assure no misunderstandings regarding rates, and arrival/departure schedules.

Occupied by:
(bracket all names sharing same room)



Telephone ()

*****All flights are to and from San Francisco & Los Angeles International Airports unless otherwise noted.
Flying time is approximately one hour.**

<u>AIRLINE</u>	<u>FARE</u>	<u>DESCRIPTIONS & RESTRICTIONS</u>	<u>SFO/LAX FLIGHT TIMES</u>	<u>LAX/SFO FLIGHT TIMES</u>
TWA	\$19 one way	Confirmed No advance purchase required	12:15am 8:20am 11:05pm	12:20am 7:05pm 12:40am 9:00pm 10:50am 11:20pm 2:55pm
PAN AM	\$13 one way \$19 one way	Stand-by Confirmed No advance purchase required	7:30am 10:40am 8:30pm Sat. only	8:15am Sun. only 3:30pm 6:40pm
UNITED	\$19.40 one way \$28.10 one way	Stand-by Confirmed No advance purchase required	7:00am thru 10:00pm Approx. every hour	8:00am thru 12:50am Approx. every hour
WESTERN	\$19 one way \$26 round trip	Must be confirmed 7 days prior to departure "Prop 13"—Reserve & purchase 7 days prior to departure & stay over 1 Sat night (Effective Sep. 6)	1:00am 3:10am 9:15am 9:45am 10:10am 2:10pm 3:10pm 7:25pm	9:25pm 12:25am 8:15pm 7:55am 11:40pm 8:45am 10:00am 12:30pm 3:00pm 4:50pm 7:20pm
BRANIFF	\$19 one way \$28.10 one way	Stand-by Confirmed No advance purchase required	5:00pm Mon. & Sat. 8:50pm Thu. & Sat. 5:50pm W, F, & Sun	7:30am Mon. & Sat. 8:15am W, F, & Sun. 5:35pm Thu. & Sat.
DELTA	\$13 one way \$13 one way	Night Coach Stand-by No advance purchase required	9:20pm F & Sat 7:15am	1:18am F & Sat 4:10pm
PSA	\$20 one way \$20 one way \$32	"Discount Fare" Must be confirmed 5 days prior to departure. ONLY on flights between 10:01am & 2:59pm Mon—Thurs "Midnight Flyer" Stand-by Confirmed No advance purchase required	11:00am 12:00 N (Additional flights to Burbank) 1:00pm 2:00pm 12:20am, except Sun & Mon <i>All flights, approximately every hour</i>	11:00am 12:00 N 1:00pm 2:00pm 12:05am, except Sun. & Mon.
AIR WEST	\$28.10 one way	Confirmed No advance purchase required	6:35am 9:50am 2:45pm 6:25pm 7:35pm	8:00am 9:30am 3:55pm 10:40am 6:25pm

This information appears, courtesy of Sequoia Travel, located in Tresidder Union, Stanford University, Stanford CA 94305 (415)323-9401.

PLEASE NOTE: prices and times are subject to change without notice. Please call the airline for current information.

Conference Session

IEEE PROPOSED FLOATING POINT STANDARD FOR MICROS TO BE PRESENTED

Tom Pittman and Jerry Coonen will be discussing the work now in progress under the auspices of the IEEE (Institute of Electronics and Electrical Engineers) Computer Society in defining a standard for floating point number storage and processing. Tom's talk will provide an overview: "The Proposed IEEE CS Floating Point Standard: What It Means to Hobbyists, Engineers, & Businesses." Jerry Coonen is planning to give an associated presentation, filling in many of the fine points. Coonen, incidentally, is working closely with W. Kahan, possibly one of the best known numerical analysts in the world - a professor in the EE/CS Department at the University of California in Berkeley. (Professor Kahan is purported to be the person who, after the IBM 360 systems were in production and installed in the field, persuaded IBM to go out and replace all of their floating point hardware, ... 'cause it just wasn't right.)

Conference Session

TO ROUND THINGS OUT...

David M. Collison will present a talk at the Faire entitled "How to Avoid Rounding Errors". Noting that small computers are especially prone to rounding errors, he will describe several programming techniques that avoid them, and will give several examples.

Conference Session

THE MICROCOMPUTER AS ANTIDOTE: MEDICAL DATABASE APPLICATIONS IN THE HOME & OFFICE

"The Microcomputer as Antidote" will explain two projects currently in progress that utilize the rapid text-indexing capability of the personal computer in medical environments.

Dr. Roger Littge will outline both projects which involve the use of medical information storage and retrieval. One of them concerns rapid determination of steps to take in the case of an accidental poisoning. The second project scans medical journal abstracts which are indexed by key words.

Dr. Littge comments on systems of poison antidote information retrieval suitable for the home as well as for doctor's offices and hospital emergency rooms. The differences between the two, and how they are designed with the users in mind, are noted.

The second project takes advantage of a medical journal abstracting service which currently generates and distributes "concise, indexed and coded abstracts in the U.S." Berkeley Medical Data Associates, of which the author is a member, is working with the abstract firm to produce their abstracts in computer-readable form.

LINE 776-L. A. AIRPORT-DOWNTOWN L. A.-CONVENTION CENTER-WILSHIRE DISTRICT

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Weekdays, Saturdays, Sundays and Holidays

L.A. Airport to Downtown L.A. and Wilshire District													Downtown L.A. and Wilshire District to L.A. Airport																
ROUTE		L.A. AIRPORT		BONAVENTURE HOTEL		HILTON HOTEL		BILTMORE HOTEL		MAYFLOWER HOTEL		NEW OTANI HOTEL		STATION WEST		SHERATON WEST		CHANCELLOR HOTEL		AMEMBASSADOR HOTEL		WILSHIRE HYATT HOUSE		HYATT REGENCY		HOLIDAY INN DOWNTOWN CORV. CTR. HOTEL #			
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ALPHA MICRO USERS SOCIETY TO
HOLD 1st ANNUAL CONVENTION
DURING THIRD FAIRE

“The Alpha Micro Users Society will hold its First Annual Convention in conjunction with the 3rd West Coast Computer Faire in Los Angeles. The initial AMUS meeting at the 2nd WCCF was attended by about 100 enthusiasts who heard Dick Wilcox talk about Alpha MicroSystems, Inc. and answer their questions.

Since then AMUS has published monthly newsletters, answered multitudes of phone calls, collected utilities and games for distribution to members, published information about available software and generally attempted to create a communications capability among the members.

The membership now stands at 165 (as of Sept. 6).

November 1st and 2nd, are the dates to remember if you want personal training on the Alpha Micro. We will be conducting classes on System Architecture, all AMOS programs, BASIC, PASCAL, writing programs, configuring systems and EDIT, TXTFMT, VUE.

On November 3rd and 4th, we will provide time and space for meetings and discussions. Already defined subjects are:

1. Board of Directors meeting
2. Communications MH
3. AMUS Communications Network
4. Cross licensing agreements
5. Word Processing
6. Special Interest Groups — Medical, Educational

The annual meeting will hopefully be scheduled on Saturday afternoon as the last regularly scheduled Faire session of the day. The meeting will include voting on proposed recommendations for changes and enhancements to the Alpha Micro System and discussion with Dick Wilcox or Bob Hitchcock.”

See you all there,
Jim Taylor, President
Alpha Micro Users Society
Box 1723
Boulder CO 80306
(303)449-8847

Conference Session

MICROCOMPUTERS IN THE HIGH
SCHOOL — EXPANDING OUR AUDIENCE

William J. Wagner will provide an account of one school’s approach to building a computer education program that meets the varying needs of students throughout the school. Wagner notes that microcomputers offer the opportunity to bring computer education to more than just the gifted few. Students vary in their interest and aptitude, and he feels that computers can assist in offering useful experiences at appropriate levels and for varying time periods.

At the 2nd Faire in San Jose last March, a lengthy question and answer period followed a similar presentation. A San Francisco Bay area group calling itself “Computer-Using Educators” was born that day and will be having its fourth meeting in January, 1979. Perhaps his presentation in Los Angeles will spark the formation of a similar group in Southern California.

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Santa Monica

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Every hour from 7:00 a.m. to 6:00 p.m. 10 minutes after the hour from 7:10 p.m. to 11:10 p.m.

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San Gabriel Valley	
(Alhambra, El Monte, West Covina)	443-1307
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Inland Empire (Fontana, Riverside, San Bernardino, Norton, Redlands)	824-1100

Save 50%

Buy a 20-Ride RTD Airport Express Commuter Ticket Card—good for one month from date of sale. Commuter Ticket Cards are available at the Airport Ticket and Information Booths, RTD Ticket Agencies, or call the RTD for mail order information.

Time schedules are approximate
Service subject to change without notice

Southern California Rapid Transit District
425 S. Main St.
Los Angeles, Calif. 90013

Effective July 1, 1978

Conference Session

TECHNOLOGY ASSESSMENT OF
THE PERSONAL COMPUTER:
AN OVERVIEW

Dr. Jack Nilles, from the University of Southern California’s Office of Interdisciplinary Programs, will present a summary of an on-going research project at USC. The study seeks to forecast the long-term trends of personal computer technology and applications. It will assess the broad scale societal impacts of the technology, examine the public policy implications of these impacts, and formulate and analyze policy alternatives aimed at increasing the beneficial societal effects and minimizing harmful impacts. The overview includes a brief discussion of the techniques by which the assessment is being performed.

FAIRE ADMISSION BADGES TO BE
AVAILABLE THROUGH COMPUTER
STORES & ELECTRONICS RETAILERS

Those planning on attending the 3rd Computer Faire, being held in the Los Angeles Convention Center November 3-5, will be able to obtain preregistration forms and admission badges, purchasing them through most of the local computer retailers and electronics distributors. The registration fee will be \$6 and will be good for all three days of the Faire. This is the same fee as will be charged at the Convention Center during the convention

The advantage of obtaining admission badges in advance is that such plan-aheaders will be able to waltz right past those who are standing in registration lines at the Faire. It also gives the opportunity to look around the local computer store -- often a fascinating adventure for those addicted to technological goodies.

The next issue of the *Gazette* will list the names and addresses of many of the retailers carrying Faire prereg materials and badges. In the meantime, contact your local retailer for details.

EX “PHONE PHREAK” TO BE
PART OF LEGISLATION PANEL

John Draper, formerly known as “Captain Crunch” of the phone phreaks, will speak at the Faire during the section and panel on “Potential Legislation Affecting Computer Owners and Users”—if he is out of jail in time, which is likely.

Draper will discuss his experience on Capitol Hill, where he feels that engineers, programmers, and other technical people have almost no presence or influence in the design of legislation.

Joh Draper is currently in jail in Pennsylvania after pleading guilty to possession of a “mischievous device”—an Apple II with phone board and programs to dial calls. Apparently he used it openly from his home phone. According to *The Washington Post*, the prosecutor spent nearly a year preparing the case against him.

John Draper may need your help to get out of jail on schedule. To keep in touch, write to his attorney, Ron Barkin, Box 4399, Berkeley CA 94704.

Editors Note: This information is being published only after we obtained explicit permission to do so.

Conference Session

SPEAKING OF SPEAKING. . .

Jeff Wise has attended a number of conferences, both professional and amateur, and has noted with increasing dismay that all too many speakers — while being extremely competent, technically — simply don’t know how to speak; how to adequately communicate their knowledge to their listeners. Thus, he will be speaking on speaking! —presenting a discussion of how to give better talks in technical conferences. Jeff, a senior in Computer Science at Chico State University, will include comments on the different attributes of the voice, techniques of delivery, how speeches may best be organized, different methods of style, visual aids, . . . and how to tell if your audience is bored!

LOS ANGELES BUS PASSES AVAILABLE BY MAIL

Public transportation in Los Angeles is operated by the RTD, which is now accepting mail orders for Airport Express bus tickets and Tourist Passes from those planning to attend the Computer Faire in Los Angeles, November 3, 4, and 5.

RTD’s Tourist Pass provides unlimited riding on all RTD bus lines, (except the Airport Express). A 3-day pass is \$3, 5-day pass \$5, 7-day pass \$7 and a 10-day pass \$10. RTD buses stop at the Convention Center where the Faire will be held.

The Tourist Pass also gives the bearer a 50 cent discount off the regular one-way \$3.50 ticket for the Airport Express. The Airport Express operates between Los Angeles International Airport (LAX) and most of Los Angeles’ major hotels. The fare is a considerable savings over the cost of a taxi from LAX to downtown Los Angeles, which averages about \$12.

Use the handy form below to place your order NOW!



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TARBELL BASIC OFFERS
EXCITING EXTENSIONS

Tarbell Electronics of Carson, California, has announced the immediate availability of Tarbell BASIC on cassette or CP/M disk. The CP/M version is capable of disk interaction, including saving and loading programs, chaining programs, and loading data. The interpreter occupies 21K of RAM.

Most of the features of Microsoft's Extended BASIC have been implemented in Tarbell BASIC, and several new ones have been added. New features include assignment of I/O, long variable names, cassette string data SAVE, procedures with local variables, and alphanumeric line labels. Additional capabilities, not found in other versions of BASIC, greatly enhance Tarbell BASIC. For instance, two statements, ASSIGN and DROP, let the user assign or de-assign as many as ten physical devices to six separate logical I/O devices. Alphanumeric line descriptors can replace normal line numbers, and the use of lengthy variable names is permitted. These features improve readability and maintenance. The use of procedures allows arguments to be passed to subroutines, and local variables may be declared to enable subroutine libraries to be developed and utilized efficiently. Subroutines may then be appended to Tarbell BASIC programs using a single command.

The I/O section listing, included in the documentation, is easily modified to suit the user's requirements. Good access to the user's machine-language subroutine is facilitated by the CALL function.

Both cassette and CP/M disk versions of Tarbell BASIC are available with complete operating manual for \$36 each. The source listing is available as a printout, or on disk, for \$25.

For complete information contact Tarbell Electronics, 950 Dovlen Place, Suite B, Carson CA 90746 (213)538-4251 or (213) 538-2254.

Dated: 78 Sep

MAJOR NSF GRANT
(continued from front page)

bought? What year did you buy it? Did you build it yourself? Did you need help? What influenced you to buy your first computer? Have you purchased any other personal computers since your first? If so, what and when? What personal computer do you plan to buy in the future? What peripheral devices did you buy with your first computer, which do you own now, and which do you expect to buy in the future? About how much did you spend at the time of your first investment in a personal computer? How large is your present investment in personal computers? Was any portion of the cost of your equipment paid for by anyone other than yourself? If so, by whom? Have you been able to deduct your personal computer from your income tax as a business expense?

As regards uses of the personal computer: What uses do you make of your personal computer for business purposes? Are these uses as the main computer for a small business and/or profession, as a personal device that accesses a large computer, or some other use? Please explain. Do you do your own business programming? If so, in what languages? Please list the business applications packages you use. What personal uses do you have for your personal computer? Do you do your own personal programming? If so, in what languages? Please list the personal applications packages that you use. Do you ever use your computer for accessing other computers over communication lines? Would you like to or plan to do so in the future? Does anyone other than yourself use your personal computer (spouse, child, business associate, etc.)? For what purpose? What would you like to be able to do with your personal computer that you can't do now because of the lack of hardware or software availability or price?

Your views about information sources are also solicited: How do you rate your sources of information about personal computers? (on a scale of 0 to 5, with 5 denoting an excellent source, 1 and awful source and 0 meaning no contact or don't know): articles and publications, advertisements and publications, technical books, manufacturers' literature, school courses, computer clubs, trade shows/conferences, job, computer stores, informal personal contacts with users, other. What computer magazines do you read regularly; to which ones do you subscribe? Of what computer related organizations or associations are you a member?

In order to get an estimate of the demographics of the existing and potential personal computer users, the research team will also like to know the following personal information: age, annual income (to the nearest \$5,000), education, your sources of knowledge of computers (e.g., graduate school, undergraduate school, high school, elementary school, military, on-the-job, self-taught), the computer languages you know, your occupation, the size of company in which you work, your occupational history, your use of computers on the job, your hobbies or interests.

Finally, the team would like to hear your own evaluation of personal computing, citing your opinion of the best thing about personal computing, the worst thing and the most im-

of personal computing, citing your opinion of the best thing about personal computing, the worst thing and the most important thing, together with any general comments that you might have about the future of personal computing, the potential uses and potential users of personal computers and your ideas of the role of personal computers as a shaper of social ideas and ideals.

All responses to these questions will be used solely for research purposes and will be kept confidential. Responses should be sent to:

Jack M. Nilles
Director
Interdisciplinary Programs
University of Southern California
University Park
Los Angeles CA 90007

ONE JAPAN GROUP, ALONE,
EXPECTS TO BRING "40 TO 50
JAPANESE ENGINEERS" TO 3rd FAIRE

We sent a form letter to many of the groups who have requested bulk quantities of the *Silicon Gulch Gazette*, asking if they wished to continue receiving them. This was one of the replies:

"Not only do we wish to continue receiving 20 copies of the *Gazette*, but for the Volume 3, Number 1 issue (just received) we would like another 30 copies by air-printed matter--just as soon as you can get them out of the door! We'll have a group of 40 to 50 Japanese engineers with us at the Faire in November in L.A. Thanks a lot."

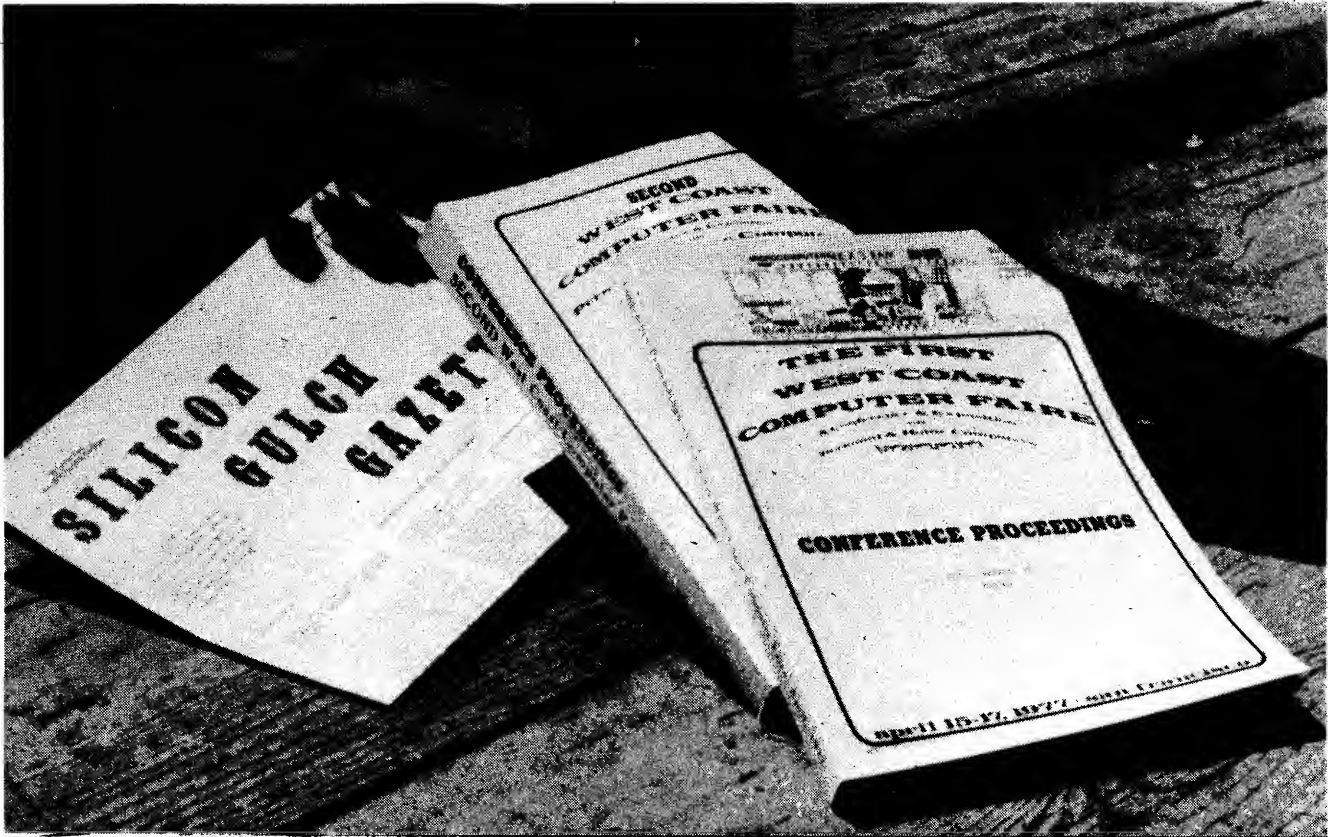
Ken Yoneda
Engineers International
Kotobuki Bldg.
7-9-6 Nishi-Shinjuku
Shinjuku-ku, Tokyo 160
JAPAN

CONFERENCE PROCEEDINGS FROM
FIRST & SECOND COMPUTER FAIRES
STILL AVAILABLE

The Computer Faire still has copies of both issues of its *Conference Proceedings* in stock. When this stock is depleted, these unique reference and tutorial publications will *not* be reprinted.

The *Conference Proceedings of the FIRST West Coast Computer Faire* contains over 300 pages of technical papers and tutorials that were presented at the Faire, held in San Francisco in April, 1977. Though some of these papers have since been reprinted in various magazines and books, most of them remain available only in the *Proceedings*.

The *Conference Proceedings of the SECOND West Coast Computer Faire*, produced in March of this year, contains over 500 pages of state-of-the-art technical papers, tutorials, and discussions relating to low-cost computing.



CONFERENCE PROCEEDINGS

Please send _____ copies of the 334-page *Conference Proceedings of the FIRST West Coast Computer Faire*, for which I have enclosed payment of:

- () \$13.00 each, for shipment to my non-California address
() \$13.72 each, for shipment to my tax-laden California address.

Please send _____ copies of the 505-page *Conference Proceedings of the SECOND West Coast Computer Faire*, for which I have enclosed payment of:

- () \$14.00 each, for shipment to my non-California address
() \$14.78 each, for shipment to my tax-laden California address.

Please give me the \$2 savings allowed for my ordering *both* the *FIRST* and *SECOND* Computer Faire *Conference Proceedings*. Please send me _____ pairs of copies of both *Proceedings*, for which I have enclosed payment of:

- () \$25 each pair, for shipment to my non-California address
() \$26.50 each pair, for shipment to my tax-laden California address.

Please make checks payable to: "COMPUTER FAIRE"
Above prices include: cost of the *Proceedings*, handling, UPS or 4th class shipping, and applicable taxes. Both publications are currently in stock. Computer Faire will not reprint *Proceedings*, once the present stock is exhausted. Therefore, a *full* refund will be promptly made if its stock is depleted.

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If you would like to receive future issues of the *GAZETTE*, without cost, and you have not received one addressed to you with "from the Computer Faire" on the label, then please send us your name and mailing address.

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MAKING FAIRE HOTEL RESERVATIONS?

If you call to make a reservation at any of the three hotels with which the Computer Faire has arranged reduced room rates for Faire attendees, be sure to indicate that you wish the Faire rates — that is, the Computer Faire rates — and that you are attending the Faire.

A Hotel reservation form is elsewhere in this issue of the *Gazette*.

IF

You receive more than one copy of Our Glorious *Gazette*,

THEN

You're obviously a true computer fanatic (oh joy!)

AND

are on more than one magazine mailing list.

PLEASE

Pass the extra copy along to a fellow Computer Enthusiast

SILICON GULCH GAZETTE

Volume 3, Number 3

Computer Faire, Box 1579, Palo Alto CA 94302; (415) 851-7075

78Oct5

Conference Session

SHE LOVES COMPUTERS

In a talk that will be useful to novices, Donna Norris will discuss why, "You Don't Have to Be 'Good In Math' to Fall In Love With Computers." She will outline what she did to familiarize herself with computers, and discuss the computer literacy course that she taught in New York. She will also recommend materials that she found helpful in her pursuit of computer information, outline the computer literacy course she presented, and make a few recommendations about setting up classes in any community.

Conference Session

RETINAL DISPLAY DEVICE TO BE DETAILED

Robert A. Freedman will discuss "The Majic Wand — A Computer Display in a Pen." He will introduce "the Majic Wand," which is a Retinal Display device. He claims that it will eliminate bulky and expensive CRT's by writing an image directly on the retina of the eye, using a scanning technique previously unexploited for this purpose. He will also discuss the innovative aspects of the display technique.

A \$49 QUALITY PRINTER?

The question: "Why Can't We Have A \$49 Correspondence-Quality Printer?" will be addressed by Bill McLaughlin. Pictures and diagrams will illustrate the "homebrew" project that McLaughlin put together, interfacing "any electric typewriter" to a computer. This has resulted in "letter quality" printing. Comparisons to commercial printers in the areas of print quality and speed will be made, and justifications for constructing this low-cost interface to convert a typewriter into a printer will be offered.

Details of construction, and parts availability will be given, as well as a discussion of software appropriate for such devices.

AN INTRODUCTION TO PERSONAL COMPUTING: A BEGINNER'S GUIDE

Bob Moody, Mike Triolo and Jerry Fox will present tutorials providing "An Introduction to Personal Computing: A Beginner's Guide" at the 3rd West Coast Computer Faire. They will explain both hardware and software aspects of personal computing and will define many of the computer buzz words necessary to penetrate the world of small computing. Even a short discussion on learning how to program will be included in Moody's presentation.

Bob Moody is an owner of the Byte Shop of Palo Alto and has written a book entitled "The First Book of Microcomputers: A Home Computer Owner's Best Friend" on which much of the Faire presentation is based.

Mike Triolo has worked in the computer industry for 14 years and has experience with both software and hardware.

Dr. Jerry Fox is a Professor of Engineering at San Francisco State University. He has developed and teaches a course on microprocessors and controls which includes an 8080-based laboratory.

OLD PROS TO DISCUSS EARLY DAYS OF CALIFORNIA COMPUTING

The Conference Program of the 3rd Computer Faire will include a delightful Section of internationally known long-time computer professionals discussing what computers and computing was like in those early days of California computing — around

continued inside of back page

Los Angeles Convention Center
Site of 3rd West Coast Computer Faire



3rd COMPUTER FAIRE BROADENS ITS FIELD OF INTEREST: LOW-COST COMPUTING FOR HOME, BUSINESS, & INDUSTRY

The First and Second Computer Faires were primarily oriented to the topic of personal, home, and hobby computing. They were organized when the field of microcomputers was just beginning to blossom, and when the market and applications were relatively unknown. As the industry and the small computer community matured in 1978, some new directions and different emphases became evident — and the expanded character of the 3rd Faire reflects these changes.

The Faire will certainly continue to significantly address the topic of home and hobby — personal — computers, in both its Conference Program and the commercial exhibition. However, there will also be significant exhibitions of computer-based products for business and industry, as well as for the home. For instance:

LOW-COST BUSINESS SYSTEMS

Prior to 1978 and even into the first part of the year, microcomputer-based business systems were either unavailable, or were in their development or debugging stages in most cases. This was primarily due to the lead time necessary to develop and thoroughly debug useful and comprehensive business applications software. Now, however, a wide collection of hardware, software, and integrated systems are available at prices far lower than were ever seen in the mini-computer era.

A number of these offerings will be exhibited in the 3rd Faire, and several of the manufacturers or programmers will be discussing them in the Conference Program.

INEXPENSIVE EDUCATIONAL SYSTEMS

An increasing number of computers, programs, kits, and systems have also come on the market, directed towards the educational community. Some of these are offered to assist in the teaching of programming or computer or digital engineering, while others are designed to provide computing power for general use in the classroom laboratory, or school administration.

Many of these will be exhibited in the 3rd Faire.

UCSD PASCAL ON AN S-100 SYSTEM

Dr. Jim Gagne of Los Angeles, California, will discuss "Getting the Wonders of UCSD PASCAL Going On An S-100 System." He states that UCSD PASCAL "is an incredibly rich collection of both machine-independent software and the best small computer language around. It is relatively easy to get up on an S-100 system that already has CP/M, but it does require some doing for optimal results, especially if you have non-standard equipment, since the system was originally configured for the PDP-11 environment." He will explain the joys and sorrows of implementing UCSD PASCAL on his small computer and the difficulties involved in the project.

Keynote Speakers

GRIMES & WARREN TO DISCUSS FORESEEABLE FUTURES AT SATURDAY EVENING BANQUET

Two outstanding professionals in the micro-computer and personal computing fields will serve as the Keynote Speakers for the 3rd Computer Faire, speaking at the Saturday evening banquet.

Jack D. Grimes will discuss, "Trends and Impacts in the Computing Industry," examining current technology and likely futures. Dr. Grimes is well known as a highly competent computer professional and a stimulating speaker of unusual insight. He invariably challenges his audiences to broaden their views of what is possible — and, in fact, likely — in the foreseeable future.

Dr. Grimes is currently involved in assessing the tradeoffs between semiconductor technology and computer architecture and languages as an Engineering Manager in the Graphic Computing Systems Division of Tektronix, Beaverton, Oregon. He is also teaching a course through Oregon

continued inside of back page

Conference Session

LEGISLATION AFFECTING COMPUTER OWNERS & USERS TO BE FOCUS OF MAJOR CONFERENCE SECTION

The Ribicoff Bill concerning "computer crime" would impose felony sentences up to 15 years' imprisonment for using an employer's computer for a personal project without permission, no matter how little computer time was used. This would include non-profit projects such as unsponsored research, club mailing lists, playing games, learning programming unofficially, free exchange of software through professional associations, etc. Permission might be hard to obtain as the same penalty might apply to a supervisor who gave permission for personal use without "authorization" to do so, and "authorization" is not defined in the bill.

The Ribicoff Bill (also called S1766, the "Federal Computer Systems Protection Act of 1977") is co-sponsored by Senators Ribicoff, Domenici, Griffin, Heinz, Jackson, Kennedy,

Continued inside of Back Page

THE THIRD WEST COAST COMPUTER FAIRE

Where? Los Angeles Convention Center
Figueroa & 12th St
Los Angeles, California

What? 70 - 80 Conference Speakers
Tutorials & Technical Talks
2 Banquet Speakers
250 - 300 Exciting Exhibits
Low-cost computing for
Home, Business & Industry
12,000 - 15,000 Pros & Amateurs

When? Nov. 3rd (Fri.) 9am-6pm
Nov. 4th (Sat.) 9am-6pm
Banquet: 6:30pm, Banquet Hall opens (cash bar)
7:30pm, Banquet served
8:30pm, Seating opens for After-dinner listeners
8:45pm, Keynote speakers

Nov. 5th (Sun.), Noon - 5pm

How much? \$6 for all three days, exhibits & conference
Also:
\$15 for Saturday evening Banquet & Speakers*
or \$5 for After-Dinner Listener Seating*

*Banquet and "Listener" tickets will be on sale in the front of the Exhibit Hall, Thursday (1pm - 5pm), and all day Friday & Saturday.

ADAM OSBORNE TO SPEAK ON FUTURE OF THE MICROCOMPUTER INDUSTRY

Adam Osborne, the well-known author, publisher, and lecturer, will forecast probable developments in the microcomputer industry over the next two years, and in the more distant future — over the next ten years, at the Los Angeles Computer Faire.

Over the next two years, Dr. Osborne sees the micro-computer industry entering a period of consolidation and maturity, during which computer stores will prosper as the new emerging outlet for computer equipment in general. Customers will finally be able to buy solutions, rather than computers. This will change the nature of the industry and of its customer base.

Over the longer term, Osborne sees the microcomputer industry engulfing both the entire minicomputer industry and most of the large mainframe computer industry. Needless to say, this will generate profound shock waves that will fundamentally alter the industry and its customer base. In the more distant future, Adam predicts that the self-programming computer will reduce computer programming to a level of simplicity where the average computer user can become “computer literate.” And, he suggests, that will end computer programming as a profession.

Conference Session

A VIDEOGAME MICROPROCESSOR IN THE ELEMENTARY SCHOOL

Al Ahumada and Sam Hersh will report on the successful use of a microprocessor videogame system to help teach simple number theory and computer principles to elementary school children. The special lesson plans and the software and hardware features of the system will be described. The videogame microprocessor was used in a summer school mathematics class sponsored by the Stanford, California, YWCA. The lessons were judged to be a success because of the high level of enthusiasm and active participation of the students and the positive report of the teacher.

The speakers comment: “We feel that learning about computers is itself important and that grammar school is not too soon to begin that instruction.” Their plans include adding a non-contact touch screen to their system so that it will be possible to enter information into the computer by merely pointing to various programmable symbols on the display. This will reduce the cognitive requirements made on the children so that next summer they can introduce computers at the kindergarten.

HAVE A HOT NEW PRODUCT FOR THE LOW-COST COMPUTING MARKET?

Gain instant fame and magnificent fortune! Exhibit your delightful devices in the Los Angeles Computer Faire. Call Marguerite for details at (415) 851-7075.

ELECTRONIC EXPERIMENTERS HANDBOOK TO BE GIVEN AWAY AT THE FAIRE

Popular Electronics will distribute 5,000 free copies of their *Electronic Experimenters Handbook* — the 1979 edition — at the Los Angeles Computer Faire, Nov. 3-5. Those attending the Computer Faire may be particularly interested in the 39-page featured Microcomputer Product Directory — a comprehensive listing including photographs, specifications, and product prices.

Popular Electronics has a 25-year history, during which it has introduced the consumer to a variety of digital technology products including the ALF and — in January of 1975 — the MITS Altair, which marked the birth of the hobby microcomputer.

Joe Mesics, publisher of *Popular Electronics*, and members of his staff will attend the 3rd Computer Faire, and will be available to meet with members of the industry and with their readers.

HIGH QUALITY DIRECT MUSIC SYNTHESIS USING MICROPROCESSORS

Hal Chamberlin, a well known experimenter in computer music, will discuss “High Quality Direct Music Synthesis Using Microprocessors.” He has said (with regard to microcomputer music synthesizers), “If these machines are to have any music value whatever, they must at least be able to play multipart harmony with a variety of easy to listen to timbres.”

He will present two alternatives to achieve this end, one way which is very expensive, and another, called “direct synthesis” which is easily accomplished with microcomputers.

This tutorial will focus on the mechanics of the “direct synthesis” technique; its hardware, software, and limitations. He will conclude the presentation with demonstrations of his work with direct synthesis of music using microcomputers.

Conference Session

A MICROCOMPUTER MUSIC SYNTHESIZER

Henry L. Pfister will discuss “A Micro-computer Music Synthesizer” at the 3rd West Coast Computer Faire. He will present a system of his own design and construction, that uses a KIM-1 monitor, Tiny BASIC, an assembler, an editor, and real time I/O subroutines for music synthesis.

Pfister is an assistant Professor of Engineering at the University of Southern California where he teaches Operations Research and Systems Engineering. His specialty is complex real time systems. He has developed the on-board microprocessor for the GPS Navigation Satellite System. He has also emulated microprocessor systems using bit-slice devices.

Conference Session

AN APPROACH TO VERY LOW COST COMPUTER VOICE INPUT TO BE PRESENTED

“Compuvox,” a very low cost computer voice input system using a novel approach based on sentence rather than word recognition will be discussed by Bill Georgiou of Microsignal.

A sentence recognizer discriminates between sentences on the basis of the number and duration of words within a sentence. The actual meaning of the words is not important, allowing the user to select the most descriptive words for a given situation without limited vocabulary constraints. An application where Compuvox performs very well is motion control in interactive video games. In addition, it can be used as a low cost, readily available sound interface to computers for a variety of applications not related to speech.

did you know —

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 - *Inexpensive intellectual assistants for business
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Underseer: Elmers R. Voyeur
Clandestine Cryptologist: R. Master Lister
Exciting Booking Agent: Faun Jackson
Dept. of Licker & Other Spirits: Patti Reed
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Please contact Marguerite at the Computer Faire
for all the details - (415) 851-7075.

Conference Session

SCAVENGER: A NEW ACTION GAME
FOR PERSONAL COMPUTING NETWORKS

A report will be given on the design and instrumentation of a new computer game called "Scavenger." In contrast to a similar commercially available game, Scavenger has been programmed in the C language to run on Z-80 microprocessors connected via ordinary telephone lines using our personal computing network protocol. The object of this game is to find words hidden in a matrix before your opponent finds the same word. The integrity of each copy of the database is maintained by an interrupt-driven error-detecting message package. A demonstration of Scavenger being played between two Xitan microprocessors connected via dial-up telephone lines is planned.

Conference Session

SOLVING SOMA CUBES & POLYOMINOES
PUZZLES BY COMPUTER

David M. Collison will detail several kinds of puzzles and discuss why they are ideal for solution on the home computer - little input/output, small amounts of data, but massive computation which might need to run overnight. In particular, he will discuss a program which handles two popular puzzles and will present examples of the output and suitable test data. This discussion will include methods of tailoring such programs - often run on megamachines - to a small computer.

Conference Session

CHRISTIENSEN TO PROPOSE GETTING
SERIOUS ABOUT COMPUTER GAMES

Bob Christiansen believes that the quality of games available for the home computer today is generally poor. Feeling that, in most cases, not enough time and thought has been devoted to the development of the games, he proposes that, "in order for there to be more enjoyable games, it is necessary to exert more effort in order to properly design computer games."

In his talk, "Let's Get Serious About Computer Games," Bob Christiansen will discuss four attributes of a good computer game: a good game won't blow up; the game is enhanced by using the computer; it is easy to play; and, the game is challenging to everybody. Christiansen will detail the methods by which these attributes can be built into computer games.

Conference Session

PROTECTING SOFTWARE WITHOUT
PATENTS - WHAT ALTERNATIVES?

A discussion by David B. Harrison on, "Protecting Software Without Patents - What Alternatives" will be presented at the Los Angeles Computer Faire. Recent developments in the law, including a recent U.S. Supreme Court case in which a novel algorithm was not allowed a patentable status, will be examined. Also, recent recommendations of the National Commission on New Technological Uses of Copyrighted Works (CONTU) will be discussed.

The speaker does not agree completely with the ideas proposed for protection of software. He locates the weaknesses of the most recent proposals, and concludes that "a new law is needed lying somewhat between copyright and patent, to provide reasonable protection to novel, innovative programming and concepts."

BRING STICK-ON LABELS TO THE FAIRE

In order to most easily place your name and address on various mailing lists that interest you at the Computer Faire, bring along some stick-on address labels. If you don't already have some of those little, glue-backed return address labels, and you do have a computer, you can always use your machine to make your own on pin-feed, pressure sensitive labels.

Conference Sessions

TWO SPEAKERS DISCUSS MICROS
IN LOCAL GOVERNMENT

Two talks at the Computer Faire will deal with microcomputers in city and local governments.

Charles E. Barb, Jr. of the University of Oklahoma, will discuss "How Microcomputers are Fitting Into Local Government." His talk will outline three types of potential microcomputer applications in local government, sketch illustrative examples of each, and summarize the broader implications of the adaptation of microcomputer technology to improve local government services. He foresees an expanding role for data processing professionals in systems procurement, development, and documentation.

The details of the introduction of microcomputers into the San Jose, California, city government will be explained in Monroe E. Postman's talk on, "Microcomputers in City Government." He will note the types of microprocessors in use, the tasks that they perform, and other details of their operation. He estimates that over \$200,000 per year has been saved because of the use of microcomputers by the City of San Jose!

MAKE YOUR AIRLINE
RESERVATION EARLY &
(MAYBE) SAVE SOME MONEY

Many airlines now offer reduced fares to those who make reservations several weeks or a month in advance. If you are flying to the Faire, see about making your flight reservations (and hotel reservations) now.

TRS-80 COMPUTING

VOL. 1, NO. 1 AUGUST, 1978 32 PAGES \$1.50

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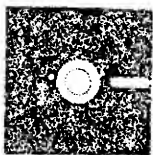
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Over 57,000 attended NCC'78, June, 1978.
Mini/Micro — an "exclusively industry" show
drew almost 10,000 to their November, 1977 convention.

We believe it reasonable to project 12,000-
15,000 attendance at the 3rd West Coast Computer
Faire in the L.A. Convention Center, November 3-5,
1978. We have a top-quality reputation. Won't you
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Conference Session

AN ASSOCIATIVE MEMORY FOR
THE S-100 BUS

The associative memory — also known as content-
addressable memory (CAM) — allows data to be accessed
by content, in contrast to conventional memory (RAM)
in which data are accessed only by location. Since CAM
is logically more complex than a RAM, it has been more
expensive to construct, in fact so much more expensive
that few have been built.

However, a new, simplified design which lowers the
cost of CAM by two orders of magnitude, has been developed.
It is called Recognition Memory, or REM.
Sydney Lamb, of Semionics Associates, will discuss
REM at the 3rd Computer Faire. He notes that the
first version of REM to be produced is designed for
the S-100 Bus.

Lamb will also detail the constuction of the
Recognition Memory board, and will discuss several
applications for REM, including pattern recognition,
information retrieval, compiling and interpreting, natural
language processing, and code compression.

IMPLEMENTING A SMALL
COMPUTER SYSTEM DETAILED
FOR BUSINESSPEOPLE

Casimir Klimasauskas will present a talk at the
Computer Faire on "Implementing a Small Computer
System." This talk is directed to managers of small
businesses who are going through the process of selecting
and installing a small business computer system.
Many helpful hints will be discussed.

Klimasauskas feels that there are a number of
aspects that management must consider when choosing
a computer system. Involved are planning, hardware
installation, software development, security measures,
people, and management. He notes that, for the
manager, "successfully dealing with a small computer
system demands an understanding of some of the
pitfalls peculiar to computers."

Conference Session

THE NEW CRYPTOGRAPHY:
PUBLIC-KEY CRYPTO SYSTEMS

"The New Cryptography: Public-Key
Crypto Systems," will be discussed by Ralph C.
Merkle. He claims that a major problem in doing
business by telephone has now been solved. He
will detail how people are now able to use a
"digital signature" over the phone lines to sign
a contract. He also claims that the digital signatures
are fully equivalent to written signatures and
can be used to "prove that the signer saw and agreed
to the signed contract."

Merkle will also present the solution to the
problem of key distribution. He will outline how
callers can now agree on a secret key over a public
phone line, even though no prior secret arrangements
have been made.

THE ECONOMICS OF PURCHASING
A SMALL COMPUTER

Casimir Klimasauskas will detail "The Economics
of Purchasing a Small Computer" at the
Computer Faire. He will describe a systematic
method for establishing the cost-effectiveness
of converting various manual systems to run on
a small computer. He will attempt to point out
pitfalls often encountered. Procedures minimizing
the chances for failure will also be suggested.

This presentation is directed primarily to the
small businessperson with or without data processing
experience. It will provide an overview
of the process involved in successfully choosing
and implementing a data processing system.

Conference Session

COMPUTERS FOR USE IN
TELECONFERENCING

"Automatic Conflict Resolution in Group
Conferencing" is the topic to be examined by
David Stodolsky at the Computer Faire. He states
that conflicts over allocation of turns to speakers
often occur in both formal and informal conferencing.
An automatic conflict resolution mechanism,
which combined anonymous inputs using preprogrammed
rules, was demonstrated in a telephone-based
conferencing problem-solving experiment.
Stodolsky will speak about this experiment and
how this approach to group experimentation
yields significant methodological advantages.

Conference Session

CBBS MANUAL

In a talk entitled, "CBBS Manual," Dave
Caulkins will present the details and description
of a Community Bulletin Board System.

Caulkins is the coordinator of the PCNET
Project on networking personal computers, and
an experienced researcher and practitioner in
the area of computer communications.

COMPUTER SIMULATIONS IN THE
COLLEGE CLASSROOM

Dr. Gene Steinhauer of the Psychology Department
at California State University at Fresno,
California, will speak at the 3rd West Coast
Computer Faire. He will discuss "Computer
Simulations in the College Classroom: Implementation
and Evaluation." He will outline a variety
of computer simulations he has used in teaching
courses on research methods in psychology. He
will mention successes of the simulations, some
of the technical details, and the learning situations
that are represented.

The reactions of the students to the simulated
learning have been overwhelmingly positive. The
faculty considers the simulated learning useful
because it allows faculty to expose the students to
a wider variety of psychological phenomena and
methods "...at a lower cost than purchasing the
traditional equipment used in those demonstrations."

Dr. Steinhauer has noted that the computing
power behind the simulations has been a PDP 11/34
as well as several microcomputers. He says,
"Microprocessors are certainly well within the
budget limitations of academic institutions and
can probably enhance the quality and effectiveness
of the education process."

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Conference Session

LOW-COST MULTI-PART MUSIC PROGRAMMED IN BASIC

Dorothy Siegel, of Newtech Computer Systems, will present several samples of music produced by a computer, discuss how they were produced, and, to conclude, will play a duet with a computer! However, she notes that "the computer-as-musical-instrument is, like any other, only a means to a musical end. It is a tool, a device that enables the musician to express himself. And the *musician* is the key to the quality of the musical experience."

Conference Session

HIGH RESOLUTION GRAPHICS & MICRO MATHEMATICS

Christopher L. Morgan, Associate Professor of Mathematics at California State University - Hayward, will discuss "Mathematical Programming On A Micro-computer With High Resolution Graphics" at the 3rd Computer Faire. He will describe and illustrate how high resolution, low cost computer graphics can help the mathematician develop his ideas and communicate them to the student and lay person.

Conference Session

DETAILS TO BE GIVEN ON STATE OF THE JAPANESE MICROCOMPUTER MARKET & JAPANESE HOBBYISTS

Professor Toshiaki Yasuda of Tokyo Denki University, Tokyo, Japan, will speak on "The Current Situation of the Japanese Microcomputer Market and Hobbyists."

Professor Yasuda is especially interested in word processing of the Japanese language, and research and development of microcomputers. He has written several books on the subject of microcomputers. *Introduction to My Computer* was published in March, 1977 and sold 350,000 copies.

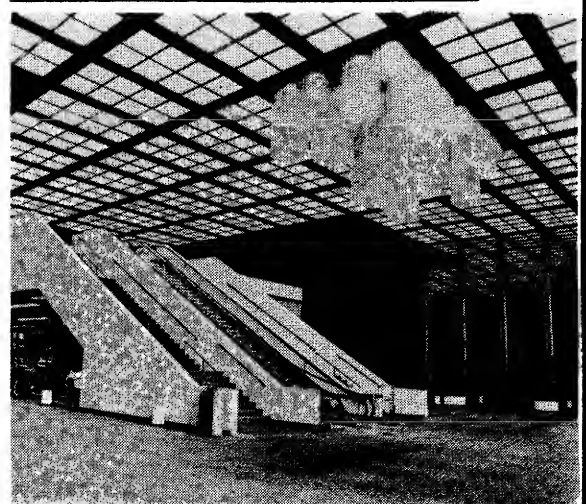
From his experience, he forecasts that in Japan in the 1980's demand for personal computers like the TRS-80 and the Commodore PET will be 300,000 to 500,000 units per year while demands for microprocessors will top 10 million units per year. Of course, he adds that the Japanese microcomputer manufacturers are gearing up for the increased demand. American micro-computer businesspeople might find his talk very interesting!

COMPUTER & ELECTRONICS CLUBS & ASSOCIATIONS MAY PURCHASE BLOCKS OF FAIRE PREREG BADGES AT A 16% DISCOUNT

Computer clubs and computer and electronics professional associations -- e.g., ACM and IEEE Chapters -- may purchase blocks of Computer Faire preregistration forms and admission badges at a delightfully deflationary discount. The retail fees and fees at the door will be \$6, providing registration for all three days of the Faire. Clubs and associations may purchase a block of 20 for \$100 -- \$5 each. The organizations can either use these to raise funds for the organization -- purchasing them at \$100 and selling them for \$120 -- or, they can pass the savings along to their club members.

Organizations may purchase as many blocks of 20 as they wish. Such purchases must be prepaid (with the Faire paying shipping charges), or may be shipped C.O.D., with the organization paying the C.O.D. and shipping charges. If the organization ends up with undistributed registrations, 100% of the quantity they ordered may be turned in to the Computer Faire up to November 2nd -- the *day before* the first show day -- for a full refund (\$5 each for all of the blocks purchased). Forms and badges will be available for shipment on or before October 1st, five weeks prior to the Faire.

Organizations or organization members interested in details of this arrangement should contact the Computer Faire, Box 1579, Palo Alto CA 94302, (415)851-7075, as soon as possible.



Main lobby of Los Angeles Convention Center

RENO TO HOST 4th CONFERENCE ON GAMBLING

Recently, Professor William Eadington, Professor of Economics at the University of Nevada, Reno, has put out a call for papers and participants for the Fourth Conference on Gambling.

It will be held at the new MGM-Grand Hotel in Reno, Nevada, December 17-19 of this year.

This year, as in previous years, the conference promises to be an exciting event, and any serious student of gambling should plan to attend.

Anyone wishing to present a paper, should submit two copies as soon as possible to:

Professor William Eadington
Program Coordinator
Bureau of Business & Economics Research
University of Nevada, Reno
Reno, Nevada 89557
Phone: (702) 784-6850.

POTENTIAL APPLICATIONS FOR SMALL COMPUTERS IN THE PRACTICE OF MEDICINE

Jim Gagne states that, as software and hardware become more reliable and less expensive, "health professionals will be among the first to widely adopt small computer systems, yet few will receive the full range of benefits possible unless innovative applications are made available in an easy-to-use form." In his talk, "Potential Applications for Small Computers in the Practice of Medicine," Jim Gagne will recommend that now is the time to get started, and "preferably in a language that is machine independent and obsolescence-proof, such as PASCAL." He has noted that increased reliability in histories, improved diagnostic and therapeutic skills, closer physician-to-patient communication, and ease of record keeping and documentation are all achievable.

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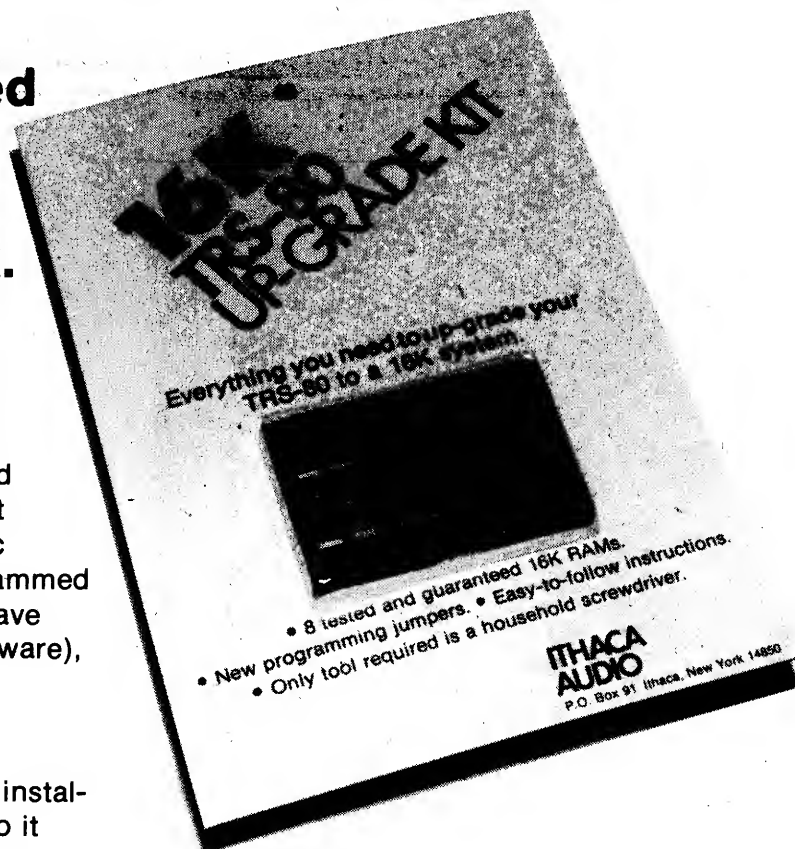
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RS-232 INTERFACE FOR THE IEEE 488 BUS

The Net Works' TNW488/232 SERIAL INTERFACE MODULE (\$280) provides two bidirectional RS-232-C data channels (75 to 9600 bits per second), plus 6 input status bits and 6 output control bits (use for Clear to Send, Data Terminal Ready, etc.).

LOW SPEED MODEM FOR THE IEEE 488 BUS

The TNW488/103 LOW SPEED MODEM MODULE (\$320) is a Bell 103 compatible modem (75 to 600 bps) with full auto-dial, auto-answer, auto-originate capabilities (connects to phone system via Data Access Arrangement).

For use with Commodore's PET and other IEEE 488-capable computers, both units incorporate a real IEEE 488 bus interface, and include power supply on the board. 90 day limited warranty, (1 to 3) week delivery. Cabinet (\$35) and PET cable (\$20) also available.

The NET WORKS

represented by
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4805 Mercury Street
San Diego, CA 92111 (714) 278-5441

Holographic 8080

There are very few times in a person's life that a major scientific breakthrough which could very well change the course of media communications comes within reach as a personal experience.

Now, due to the science of laser technology and recent advances in the state of the art of holography, a new space age product—the hologram—has been created for your enjoyment. This white light viewable hologram needs not a laser but only sunlight or normal room lighting for viewing. This hologram is a commemorative to the birth of personal computing based on LSI MPU's, and for its subject matter has an Intel 8080 CPU revealing its internal structure under a two-power magnifying lens that is actually in the hologram. The viewer may use the holographic lens to examine the structure of the CPU's LSI wafer making an extraordinary viewing experience. Truly a unique gift for anybody in the personal computing field.

Your dazzling pendant hologram is supplied with a goldtone chain and bezel.

Also available is a 4-page Laser Jewelry tutorial with diagrams and information on how your hologram was made.

Send for your list of over 70 other available holograms. Special images by request, i.e., logos, premiums and commemoratives.

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_____ Intel 8080 Holograms @ \$20.00

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(213) 372-8994

DIGICAST PROJECT TO INITIATE DIGITAL BROADCASTING SYSTEM FOR THE GENERAL PUBLIC — AN "ELECTRONIC NEWSPAPER"

The Digicast™ Project is planning on implementing a broadcast-based news & information distribution facility, hopefully operational by early 1979 in one or several areas of the U.S. This system plans to transmit digitally-encoded alphanumeric information (and probably computer programs, as well) using some of the subcarriers that are inherent in every FM transmission.

BETTER THAN NEWSPAPERS

This project falls in the general category often called "electronics newspaper." It is comparable to traditional newspapers in much of the planned content -- international, national, regional, and local news; want ads, theatre schedules, real estate listing, stock and commodities quotes, sports data and schedules, etc. It is also comparable in its unidirectional distribution and in its mass distribution. However, it is a considerable improvement over newspaper in its technology:

It does *not* require cutting down forests, to make paper, to put ink on, to distribute via energy-consuming vehicles.... in order to distribute the news a day or more late. Digicasting does not produce a waste-paper or trash problem. Digicasting -- using only *one* transmitter (how many FM transmitters are in *your* area?) -- can distribute at least an order of magnitude more information than can a traditional daily metropolitan newspaper. It allows immediate distribution of news and data: when the editor or reporter decides the article he or she has typed into the transmitter computer system is ready for transmission... it's transmitted. Since the incoming data is in machine-readable form, the consumers can use their intelligent receivers to assist in searching and saving the flood of incoming information. "Let your computer do the walking."

TECHNOLOGICALLY, POLITICALLY, & FINANCIALLY VIABLE

No technological breakthroughs are needed; the technology has already been proven. No regulatory breakthroughs appear necessary; the FCC (Federal Communications Commission) has already adopted a policy explicitly allowing such transmission on SCA's -- the so-called "Subcarrier Authorizations" available for every commercial and every nonprofit FM broadcaster. No significant consumer expenditures appear necessary; the receiver module capable of receiving the analog FM signal and converting it into parallel or serial digital output are obviously able to be produced for retail sale in the range of \$50-\$100 -- with considerable reductions certain, once the consumer market can support volume production.

THE TIME IS NOW!

The Digicast Project is planning on beginning transmission as soon as is feasible from organizational, manufacturing, and economic viewpoints. There is some reason to believe this may be early 1979.

The Project plans to place most of its developments in the public domain -- it is no more reasonable to attempt to monopolize such a proposed information utility than it would have been for Gutenberg to have attempted to

Conference Session

SECOND-SOURCING: COMPETITION & NECESSITY, OR THEFT?

"Second-Sourcing CPUs: Emulation, Ethics, and Electro-Politics" will be discussed by Chuck Hastings. He comments, "In the traditional computer culture, CPU architectures and instruction sets have been regarded as property and CPU second-sourcing has been considered immoral, not to mention illegal and fattening. In the traditional semiconductor culture, on the other hand, nobody bought your fantastic new chip unless at least one of your hungry competitors second-sourced it, and so, second-sourcing became a way of life."

The contrast between these two traditions will be the topic of Chuck Hastings' talk. Many ethical questions come out of this clash of ideas which Hastings will examine. He will conclude with several recommendations regarding how to resolve the ethical conflicts involved.

monopolize the printing technology he developed. System design, transmission and format protocols, receiver protocols, etc. will be published and thereby placed in the public domain. Only explicit hardware or software implementations will remain proprietary -- with more than enough design and protocol information in the public domain to allow others to construct similar and competitive systems and equipment.

The number of Digicast transmitters that will be initially operational is strictly a function of the amount of venture capital initially invested. Current plans call for the first unit to be in the San Francisco Bay area, with additional units planned for other high-population, high-technology areas as soon as they can be financed. The start-up costs involve design and implementation of the transmitter hardware and software, organizing the editorial operations staff, design of the receiver units, and -- over all of this -- design of the system and protocols. Operational costs will include leasing SCA's from FM station owners (a *significant* cost), leasing news wire services, editorial and operations staffing, and promotion -- spreading the word of this new and useful information utility.

THE DIGICAST PROJECT

The creator and Director of the Project is Jim C. Warren, Jr., a computer professional of a dozen years' experience, and an Editor of a journal for the past several years. (He is also the initiator and Chairperson of the West Coast Computer Faires.) He has sought out and received active support, suggestions, and informal direction in this project from a number of experts and specialists, including such people as Professor Ed Parker of Stanford University's Center for Communications Research; Paul Baran of CableData, and Dave Caulkins, one of the leaders of the PCNET Project.

DIGICAST WORKSHOPS

Early this winter, Warren will convene a series of Digicast Workshops on the San Francisco Peninsula. These Workshops will address the various major aspects of making Digicasting operational, including: Organization & Financing, Transmission Electronics Protocols, Low- & High-Level Data Formats, Receiver Hardware Design & Implementation, Transmitter Hardware & Software Design, and Data Transmission Protocols. To a large extent, these will be invited Workshops for experts and specialists rather than conferences for interested observers. Their purpose is to produce initial designs, protocols, and a business plan. These will then be published, and feedback and suggestions for improvement solicited. In all likelihood, a Project Status Report will be given as part of the Conference Program of the 3rd Computer Faire -- which *will* be for interested observers.

Regarding the Workshops: There will probably be a nominal fee charged to participants--\$5-\$50 -- that may be waived under special circumstances. Everyone interested in being considered for participation should write -- *don't phone*, outlining in one page or less their interests, expertise, and the contributions they feel they could make in these initial design sessions. If they are too busy to write such a page, or if they are unable to limit it to one page, then ... that will say something about their probable ability to make a significant contribution.

NEWS OF DIGICAST DEVELOPMENTS & DESIGNS

As the Digicast Project proceeds, news of its progress, details of the initial and final hardware, software, systems, and protocol designs, etc. will be published in a fast-turnaround bi-weekly newspaper being started by Jim Warren, the *Intelligent Machines Journal*. This will be the major source, and certainly the fastest source of current information regarding all public aspects of the Digicast Project. Of course, additional information will be made available on occasion, at conferences and conventions, and through lay and professional periodicals, manuals, and other publications.

P.E.T. Food

NOURISH YOUR HUNGRY P.E.T. WITH SELECTIONS FROM CREATIVE SOFTWARE'S EXTENSIVE MENU!

DUAL JOYSTICK INTERFACE: This Creative Software interface allows you to plug in two Atari-type joysticks (not included) with no modification to the P.E.T. Comes with two games and complete programming instructions..... **\$35.00**

JOYSTICKS: for above interface, price each..... **\$12.50**

BREAKOUT: NEW -- Written in machine language for increased speed and enjoyment. Uses either keyboard input or any CREATIVE SOFTWARE joystick (single or dual). You get ten balls to knock out three double layers of bricks. Positively addicting..... **\$10.00**

LIFE: (By S. Bartonsmith) Possibly the finest personal computer version of LIFE currently available, this program uses machine language routines to display up to four new generations per second. User-definable initial configuration, complete screen wraparound, and introducing two original additions--"posts" and "holes."..... **\$20.00**

TRAP and CRAPS (Joystick or keyboard input).....**\$10.00**

HURKLE and ONE-QUEEN (Joystick or keyboard input).....**\$10.00**

HOUSEHOLD FINANCE Parts I and II.....**\$15.00**

ORDERS: Send check, money order, or VISA/Mastercharge (include expiration date) and add the following shipping charges: 1-2 programs (or dual joystick interface)- 1.50. 3-4 programs- 2.00. 5 or more programs- 2.50. Extra joysticks, each- 1.50. California residents add 6% sales tax.

INFORMATION: More information on these and many other currently available programs are available on a free flyer. Write directly to Creative Software for a complete list.

Creative Software

P.O. BOX 4030, MOUNTAIN VIEW, CA 94040

PETing PROVIDES SOLUTION
TO UNIVERSITY PROBLEM

Ronald J. MacKinnon, an Associate Professor of Mathematics at St. Francis Xavier University, will present "A PET Solution to a University Problem." Noting that many people have suggested that microcomputers are very limited in what they can offer to education, MacKinnon, in a way, will come to the defense of microcomputers. He will explain how St. Francis Xavier University was able to make use of six Commodore PET's to solve a problem there. He will describe the computer laboratory set up for the PET's, and will detail how they are used.

Conference Session

MICROS IN SCHOOL TESTING
& EVALUATION

In a discussion of "A School's New Staff Member" Gerald Hasty will talk about using microcomputers in schools for testing and evaluation. He will present several guidelines for choosing an accurate evaluative measuring device.

Conference Session

COMPUTER-ASSISTED EDUCATIONAL
TEST CONSTRUCTION

A paper written at the Teaching Resource Center of the University of California at Davis will be presented by Eli Cohen, a Measurement & Evaluation Specialist for the Teaching Resource Center. The title of the talk will be "Software Considerations in Designing Computer-Assisted Test Constructions."

Conference Session

A COMPREHENSIVE PUPIL PERSONNEL
ACCOUNTING SYSTEM UTILIZING
MICROCOMPUTER SYSTEMS

Dr. Melvin L. Zeddies states that to date, most applications of computers in the field of education have been in the area of instruction. However, the areas of administration, counseling, and combinations of other areas lend themselves to benefit from computer systems as well. Dr. Zeddies will discuss "A Comprehensive Pupil Personnel Accounting System Utilizing Microcomputer Systems." He will detail the increased efficiency resulting from a small computer system introduced into a school administration office, and the even more noticeable benefits when the system is applied to the entire school district. A must for school administrators!

Conference Session

THE PET VISITS HUNTINGTON

The PET graphics capability permits a significant improvement in many programs. The Huntington II programs, POP and POLUTE, have been modified to take advantage of these graphics.

An A-to-D converter designed for the PET permits inputs from joysticks and from potentiometers. This capability permits more realistic laboratory simulations as illustrated by the Huntington II simulation, CHARGE. There will be live demonstrations of these modified programs on a PET. The graphic capability of the PET permits the development of discovery learning (or laboratory experiences) in mathematics. This will be illustrated with a coordinate geometry program called POINTS.

Two interesting and challenging games called "Tic Tac Pet" and "High Count" which provide learning experiences in algebra will be described.

All three of these programs will be demonstrated on a PET. The PET teaches English. The graphic and manipulation capabilities of the PET have been exploited to construct programs in English called SPLL, PUNC, and HYPHEN which respectively teach spelling and word meaning, punctuation of sentences, and syllabification of multisyllable words. These programs will be demonstrated on a PET, and discussed in detail by Professor Lud Braun from SUNY's College of Engineering.

Conference Session

A COLORADO COMMUNITY COMPUTER
FACILITY TO BE DESCRIBED

Stephan K. Elliott will present a short talk on "Boulder, Colorado's Community Computer." They installed their system, an Alpha Micro AM-100 system in November, 1977. It has 64K of random access memory, four Persci floppy drives, four CRT terminals, two hard copy terminals, and an auto-dial auto-answer modem.

Uses of the computer, and details of their programs are included in the article. Elliott will also discuss a proposal for providing greater community access via coin-operated terminals all over town.

MICROCOMPUTER FEASIBILITY IN
THE HOSPITAL SETTING

Robert C.A. Goff will give a talk entitled "Microcomputer Feasibility in the Hospital Setting."

Noting that in the past, hospital administrations have been reticent to use microcomputers where minicomputers have become acceptable, Goff, and several other staff members of the Children's Hospital of Oakland, California, developed a microcomputer system that was used only for feasibility studies.

He will detail that microcomputer system and how it has been used to determine the feasibility of several applications in the Children's Hospital.

Conference Session

MICROCOMPUTER PROGRAM
CORRECTNESS TO BE DISCUSSED

Since mathematics and computer science are so intimately tied together, why is there not more "mathematical flavor" to computer science? Why are not more things "proved" about computer programs?

W.D. Maurer will discuss "Microcomputer Program Correctness" showing that it is possible to prove things about computer programs, even on micros. This talk will apply the methods of "proving things" to microcomputer programs.

Dr. Maurer says: "We will make a number of extensions of known methods of program proving." Maurer notes that one of the more important things to be proved about a program is that it is *correct*. Guidelines for "correct," "partially correct," "clean," and "terminating," will be discussed.

Conference Session

INTERACTIVE LANGUAGE FOR
THE SEVERELY HANDICAPPED

Guy M. Hoelen, Michael S. Bodner, and William J. Zogby will present a discussion of "An Interactive Language for the Severely Handicapped." Hoelen states that the talk will deal with the use of symbols and language for the severely handicapped, including the expressive aphasic.

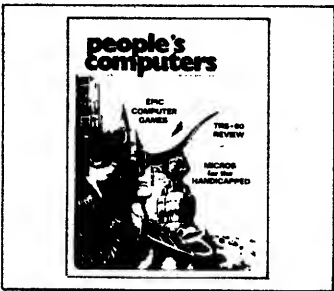
ONE JAPAN GROUP, ALONE,
EXPECTS TO BRING "40 TO 50
JAPANESE ENGINEERS" TO 3rd FAIRE

We sent a form letter to many of the groups who have requested bulk quantities of the *Silicon Gulch Gazette*, asking if they wished to continue receiving them. This was one of the replies:

"Not only do we wish to continue receiving 20 copies of the *Gazette*, but for the Volume 3, Number 1 issue (just received) we would like another 30 copies by air-printed matter-just as soon as you can get them out of the door! We'll have a group of 40 to 50 Japanese engineers with us at the Faire in November in L.A. Thanks a lot."

Ken Yoneda
Engineers International
Kotobuki Bldg.
7-9-6 Nishi-Shinjuku
Shinjuku-ku, Tokyo 160
JAPAN

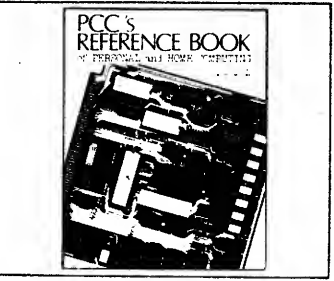
PEOPLE'S COMPUTER CO.
PUBLICATIONS



PEOPLE'S COMPUTERS

A magazine for beginning and intermediate level computer users, educators and those who wonder what computing is all about. It covers everything from elementary programming to assembly language, from ready-to-use program listings to the development of a new language. Not to mention games, listings, surveys, interviews and consumer advice.

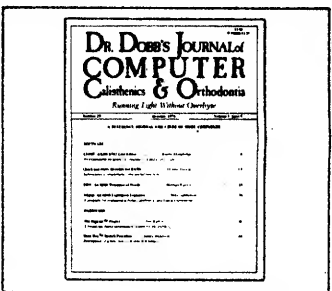
Published bimonthly. \$2.00 per copy.



THE PCC REFERENCE BOOK
OF PERSONAL AND HOME
COMPUTING

Contains a complete bibliography for computing, a massive index of articles from computing magazines, and a computer music bibliography. Comprehensive articles on software, hardware, applications, robots, and consumer info... plus extensive lists of clubs, newsletters, magazines, computer stores and more!

248 pages, paperback, \$5.95.

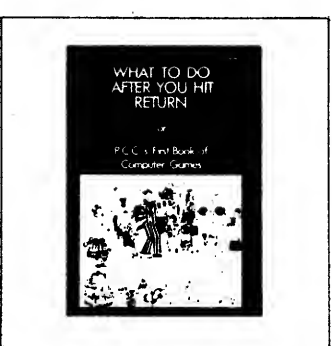


DR. DOBB'S JOURNAL

DDJ publishes significant systems and applications software in the public domain and provides a forum for the personal computing community. It also offers independent product evaluations and consumer advocacy. "THE software source for microcomputers. Highly recommended."

-The Data Bus, Philadelphia Area Computer Society.

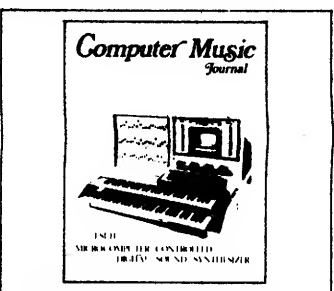
Published 10 times/yr. \$2.00 per copy.



WHAT TO DO
AFTER YOU HIT RETURN

Computer games for all ages. Educational and fun! Most can be played with or without a computer. Readers can captain a starship, hunt the wumpus, draw a mandala, run the US economy and lots more. Fully illustrated.

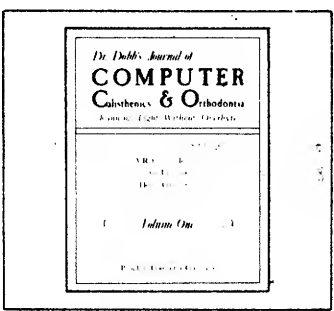
184 pages, 4th printing. \$8 retail.



COMPUTER MUSIC JOURNAL

A journal devoted to the high-quality musical applications of computers. This is a unique source of technical and consumer information on the art and science of computer generated music. No other publication like it in the field.

Published quarterly, \$3.00 per copy.



DR. DOBB'S JOURNAL - VOL. ONE

One of the best bargains for inexpensive software anywhere. A single, bound volume of the first 10 issues of DDJ, complete and unabridged. The emphasis is on systems and applications software, including extensive source code program listings. Languages like CASUAL, SCELBAL, MINOL and a myriad of tiny BASICS, plus: a systems monitor, floating point routine, text editor and speech synthesis.

360 pages, 2nd printing, \$13 retail.

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\$10/yr., published bimonthly
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\$15/yr., published 10 times/yr.
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☐ Computer Music Journal
\$12/yr., published quarterly
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Payment must accompany book orders. California Residents add 6% sales tax on price of book.

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Please Note: Payments must be in U.S. Dollars drawn on a U.S. bank. Please mail this form or a facsimile to:
People's Computer Co., Dept. 5H, Box E, 1263 El Camino Real, Menlo Park, CA 94025.

Conference Session

FUTURIST TO PREDICT FORTHCOMING INTELLIGENT MACHINES

Have you ever thought what it might be like to carry on an intelligent conversation with your house? Or play Econogame with 50 million North Americans? It's coming, and soon. This, along with other glimpses of tomorrow will be discussed by Alan P. Hald, co-founder and President of the Phoenix Group, in a seminar on "Visions of a Futurist."

GROUP FORMING ON LEGISLATION & COMPUTERS

This announcement is a call for volunteers to form a study and action group concentrating —for now— on issues raised by the U.S. Senate Bill S1766 (the Computer Crime Bill), and later, on specific issues involving computer privacy and government legislation and regulation. The group will need computer professionals, attorneys, social scientists, civil libertarians, and men and women of good will, who are concerned about government intentions towards privacy, civil liberties, and the computer in society.

This group will be an independent competency center that will authoritatively answer technical, legal, and social questions arising due to the government's indecorous interest in computers and record keeping.

Contact John K. Taber, 609 Meadow Ave., Santa Clara CA 95051.

Conference Session

LOW-COST MARKET SURVEY METHODS

Donald M. Dible will discuss methods of conducting low-cost market surveys. This talk will be directed to small companies where market research funds are limited. He will comment on trade associations, stock brokerages, local business organizations, trade publications, government agencies, and how these entities can help you do a market survey.

Attractions Quick Facts

DISNEYLAND, 1313 Harbor Blvd, Anaheim. (714) 533-4456 or (213) 626-8605. Open daily. General admission: adults \$5.50, 12-17 yrs. \$4.50, under 12 \$2.50. Admission + 11 rides: adults \$7, 12-17 yrs. \$6.50, under 12 \$6.

KNOTT'S BERRY FARM, 8039 Beach Blvd, Buena Park. (714) 827-1776. Open daily. General admission: adults \$5.25, 3-11 yrs. \$3.75, under 3 free. Admission + 11 rides: adults \$6.75, 3-11 yrs. \$5.75, under 3 free.

LION COUNTRY SAFARI, Irvine Center Drive, Irvine. (714) 837-1200. (213) 485-8951. Open daily from 9:00 a.m. Admission: adults \$4.95, 3-11 yrs. \$3.25, under 3 free.

MAGIC MOUNTAIN, Magic Mountain Parkway, Valencia. (213) 367-2203, (805) 255-4111. Open daily. Admission: adults \$8.50, 3-11 yrs. \$7.50, under 3 free.

MARINELAND, Rancho Palos Verdes. (213) 541-5663. Open daily. Admission: adults \$5.50, 4-11 yrs. \$3.75, under 4 free.

MOVIELAND WAX MUSEUM, 7711 Beach Blvd, Buena Park. (714) 522-1154, (213) 583-8025. Open daily. Admission: adults \$4.95, 4-11 yrs. \$2.75, under 4 free.

NBC STUDIOS TOUR, 3000 W. Alameda Ave., Burbank. (213) 845-7000. Tours daily from 10 a.m. Admission: adults \$2.10, under 12 yrs. \$1.40.

QUEEN MARY TOUR, Pier J, Long Beach. (213) 435-4747. Open daily from 10 a.m. Admission for tour: adults \$5, 5-11 yrs. \$1.75, under 5 free.

UNIVERSAL STUDIOS TOUR, 100 Universal City Plaza, Universal City. (213) 985-8687. Open daily from 8 a.m. Admission: adults \$6.75, 12-16 yrs. \$5.75, 5-11 yrs. \$4.75, under 5 free.

Hours and prices effective June-Sept. 1978

Greater Los Angeles Visitors and Convention Bureau
305 South Flower Street • Los Angeles, California 90071

Conference Session

MEDICAL EXPERTS TO EXAMINE BIOMEDICAL MICROS

Dr. Robert Goff, a Research Associate at Children's Hospital in Oakland, and President of the Berkeley Medical Data Association, has organized a panel of biomedical computing specialists to discuss, "The Capabilities of Microcomputers in Health Care Applications. What Costs? What Sacrifices?" The panelists will include Dr. Goff, and:

Dr. Ronald Henley, Assistant Director, Office of Medical Information Science, University of California Medical Center, San Francisco,

Dr. Roger Littge, Medical Consultant to Lawrence Hall of Science, and Vice President of the Berkeley Medical Data Association,

Robert Brehm, President, Promedics Data Corporation,

Dr. Ken A. McGinnis, Consultant, Creative Data Processing, and

Dr. George Krucik, Consultant, Patterson Dental Supply.

Conference Session

MICROCOMPUTER APPLICATIONS FOR BIOMEDICAL INSTRUMENTATION

Robert C. A. Goff, in his talk about "Microcomputer Applications for Biomedical Instrumentation: A Monitor for the Corning M-175 Blood Gas Analyzer," discusses new biomedical instruments that are microprocessor-controlled and which can be equipped with a serial data port for transmitting results and/or receiving control commands.

A microcomputer monitor, developed by Goff, will be used as an example in considering the important aspects of designing software for such a biomedical application. Some of the topics upon which he will touch include: input, handshaking, data access, permanent storage, and choice of a language. Robert Goff will also offer some futuristic speculation in which he sees the microcomputer as doing more than just monitoring health care of hospital patients.

CHES FOR PET, TRS-80, APPLE

MICROCHESS is the culmination of two years of chessplaying program development by Peter Jennings, author of the famous 1K byte chess program for the KIM-1. MICROCHESS 2.0 for 8K PETs and 16K APPLES, in 6502 machine language, offers eight levels of play to suit everyone from the beginner, learning chess, to the serious player. It examines positions as many as six moves ahead, and includes a chess clock for tournament play. MICROCHESS 1.5 for 4K TRS-80s, in Z-80 machine language, offers three levels of play. Both Level I and Level II versions are included and can be loaded on any TRS-80 without TBUG. MICROCHESS checks every move for legality and displays the current position on a graphic chessboard. You can play White or Black, set up and play from special board positions, or even watch the computer play against itself! MICROCHESS is priced at \$19.95 and is available from computer stores nationwide or by mail from Personal Software, Box 136, Cambridge MA 02138, phone (617) 783-0694.

Received: 78 Sep 5

NCE/COMPUMART OFFERS 8-LEVEL RS-232 READER/PUNCH

What do you do with a warehouse-full of still-in-the-box paper tape reader/punches? The answer: add the electronics to make them usable in any data communications or computer environment.

NCE/CompuMart had the opportunity to purchase many hundreds of unused reader/punches consigned to a spare parts warehouse. After selling some to experimenters and hobbyists who adapted them for computer and data communications applications, NCE realized that users without the ability to modify the punches would use them already interfaced and connected to a power supply.

NCE has interfaced the unit to operate with a standard acoustic coupler or an RS-232-compatible interface. A version of this unit with a parallel interface is also available. The interface converts the mechanical reader contact inputs and punch solenoid outputs to RS-232 levels and ASCII codes for easy connection to a computer. It can even be used as a remote paper tape terminal using an RS-232 acoustic coupler. Applications include typesetting, numeric control, program tape loading and tape generation/duplication. Documentation is provided for operation, adjustment and service.

Ready to plug in, the serial version of the unused units sells for a packaged price of \$895.00, and the parallel model sells for \$695.00 (refurbished reader/punch units are also available for even less). All units are covered by a 90-day parts and labor warranty. For more information contact NCE/CompuMart, Box 8610, Ann Arbor MI 48107, or call toll free at 800-521-1534 to order.

Conference Session

COMPUTERS, PEOPLE & LAW

In a talk, "Between Computers and Law — Our Lives Swing Daily," Attorney S. Pal Asija will give a tutorial on the daily interaction between computers and the law, and the extent to which this interaction affects our lives. Some of the topics surveyed will include: legal considerations in system design, discrimination and invasion of privacy by computers, special considerations in computer litigation, and many more.

NORTH STAR OFFERS DOUBLE DENSITY MICRO FLOPPIES WITH NO PRICE INCREASE

All North Star Horizon computers and Micro Disk Systems shipped starting in late November will include a new double-density controller board and a double-density certified Shugart SA-400 minifloppy disk drive. Thus, 180,000 bytes can be accessed on each diskette. Furthermore, higher capacity disk drives can be used with the new controller board, as they become available.

North Star BASIC and DOS have been upgraded to accomodate the increased capacity. Programs written for single-density North Star systems will operate with little or no change on the double-density systems. Furthermore, disk drives purchased with single-density North Star systems can be used.

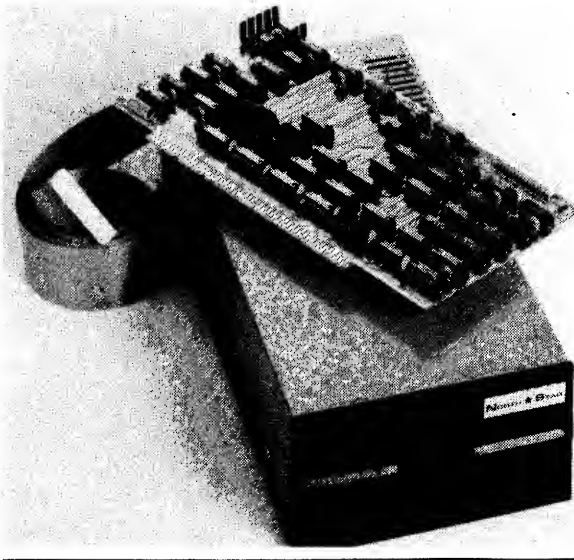
The Horizon computer, in the basic configuration, includes a Z80 processor, 16K bytes of RAM, a serial I/O port and one minifloppy disk drive, for \$1599 kit and \$1899 assembled.

The Micro Disk System includes an S-100 bus controller, one minifloppy disk drive, cabling and connectors and power regulation circuitry.

Both the Horizon and MDS systems include North Star BASIC, DOS and Monitor on diskette, as well as complete hardware and software documentation.

For further information, contact a retail computer store or North Star Computers, Inc. 2547 Ninth St, Berkeley CA 94710, (415) 549-0858.

Dated: 78 Sep.



TARBELL BASIC OFFERS EXCITING EXTENSIONS

Tarbell Electronics of Carson, California, has announced the immediate availability of Tarbell BASIC on cassette or CP/M disk. The CP/M version is capable of disk interaction, including saving and loading programs, chaining programs, and loading data. The interpreter occupies 21K of RAM.

Most of the features of Microsoft's Extended BASIC have been implemented in Tarbell BASIC, and several new ones have been added. New features include assignment of I/O, long variable names, cassette string data SAVE, procedures with local variables, and alphanumeric line labels. Additional capabilities, not found in other versions of BASIC, greatly enhance Tarbell BASIC. For instance, two statements, ASSIGN and DROP, let the user assign or de-assign as many as ten physical devices to six separate logical I/O devices. Alphanumeric line descriptors can replace normal line numbers, and the use of lengthy variable names is permitted. These features improve readability and maintenance. The use of procedures allows arguments to be passed to subroutines, and local variables may be declared to enable subroutine libraries to be developed and utilized efficiently. Subroutines may then be appended to Tarbell BASIC programs using a single command.

The I/O section listing, included in the documentation, is easily modified to suit the user's requirements. Good access to the user's machine-language subroutine is facilitated by the CALL function.

Both cassette and CP/M disk versions of Tarbell BASIC are available with complete operating manual for \$36 each. The source listing is available as a printout, or on disk, for \$25.

For complete information contact Tarbell Electronics, 950 Dovlen Place, Suite B, Carson CA 90746 (213)538-4251 or (213) 538-2254.

Conference Session

LOOK OUT! S1766 MAY BE COMING

A talk "On Computer Crime Bill S1766" will be given by John Taber. The law was apparently written for the sponsoring Senators by two attorneys, neither of whom had much experience with computers and their daily uses in business and government. Taber describes the bill as "dangerously broad for what it does cover." He adds that the areas that it *should* consider are neglected, and other parts of the bill are completely unnecessary!

John Taber is a staff programmer for IBM. He has worked on the development of APL and is presently working on a database query system.

Conference Session

BASIC & THE BUSINESS COMMUNITY

Richard E. Barnhart will propose that BASIC offers little of positive value in a mid- or large-size data processing shop. He suggests that as a learning tool it is quite valuable, but its syntax, I/O, and report writing capabilities are too limited for most business applications. In some areas of business, though, BASIC is being used successfully today. In the near future there promises to be a significant increase in the use of BASIC in business — but outside of data processing shops. Barnhart will discuss some of the interesting implications this holds for both hobbyist and "professional" programmers.

Conference Session

USING FUTURES RESEARCH METHODS TO ASSESS POLICY IMPLICATIONS OF THE PERSONAL COMPUTER

Personal computers have potential benefits in education, business, health, and other fields as well as posing potential difficulties in privacy, security, etc. Professor Paul Gray of USC's Graduate School of Business Administration will discuss a variety of futures analysis techniques. These will include Delphi and cross-impact methods which will be used to explore the policy implications of this new, personal computing technology.

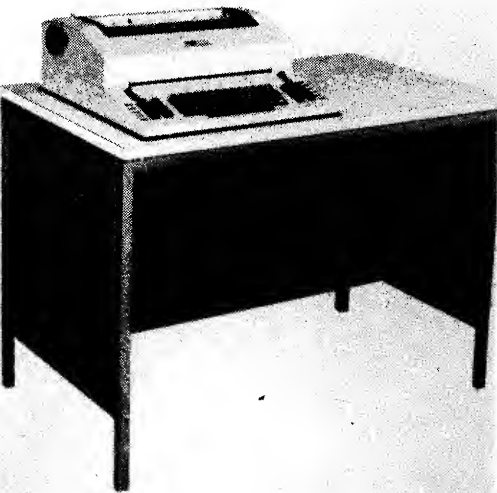
ASCII SELECTRIC TERMINAL AVAILABLE FROM NCE/COMPUMART

A Microcomputer has given an old dog the ability to do new tricks. Not really an old dog at all, the TC-71 is a relatively new Selectric-based terminal, appropriate for applications requiring high-quality type, but replaced in many applications by the even newer and faster daisy wheel-based terminals.

NCE/CompuMart has ASCII-encoded the TC-71 by replacing its original electronics with a Motorola 6802-based microcomputer on a single board. This CPU performs the EBCDIC-to-ASCII code conversion, buffers data, and still allows the terminal to be used in Local mode for off-line typing. Serial operation is at 110 baud or at 150 baud (with fill characters); 300, 600, and 1200 baud rates are also available to operate with host machines supporting buffer handshake characters. Maximum printing speed is 15 characters per second.

For host machines which do not accept lower-case characters, the enhanced TC-71 can be switched into an upper-case only mode. Another standard feature is the automatic inhibition of the line feed following a carriage return. This prevents unwanted double spacing. The normal unit uses PTTC-encoded typing elements. A \$20.00 option allows the use of the more common Correspondence typing elements. Keyboard indicator lamps include Power On, Carrier Detect, and Local/On-line mode.

The price of the TC-71 is \$864.00, with transportation charges C.O.D. For more information, contact NCE/CompuMart Inc., Box 8610, Ann Arbor MI 48107, or order by calling toll free at 800-521-1534.



Conference Session

THE RIBICOFF BILL TO BE ANALYZED AT THE FAIRE

John S. James will discuss Senate Bill 1766 also known as the Ribicoff Bill. This bill, now under consideration in the Senate, would provide up to 15 years imprisonment for any use "without authorization" of any computer, network, or software operated by any organization operating in interstate commerce. Among other things, nonprofit personal projects by employees would be illegal, such as unsponsored research or education, club mailing lists, or game playing.

James draws on his experience as a professional computer programmer and systems analyst to discuss the impact of such a law on industry working conditions and the development of professional skills.

James has also organized and will chair the Panel on "Potential Legislation Affecting Computer Owners and Users."

Conference Session

PHILOSOPHICAL & PRACTICAL CONSIDERATIONS OF COPYRIGHTING SOFTWARE TO BE EXAMINED

Attorney Kenneth Widelitz will present a talk entitled "Copyright and Software: Some Philosophical and Practical Considerations." He will discuss the final report of the National Commission on New Technological Uses of Copyrighted Works (CONTU). A look at the Copyright Act of 1976 will also be included.

RETAILERS: REQUEST RETAILER RIBBONS FOR YOUR BADGES (TO BE ALLOWED ADMISSION SUNDAY MORNING)

Sunday morning (Nov. 5), from 10am to noon, the exhibit area will be open exclusively to retailers, exhibitors, and exhibitors' guests. If you are a retailer (or distributor), please write to us on letterhead stationery letting us know. We will be happy to furnish you with a "Retailers" ribbon that you may attach to your registration badge, thereby gaining admission to the Sunday morning session. (You might also use that same letter to order bulk quantities of the *Gazette* — without cost, and order bulk preregistrations at discount prices to sell in your store. See details elsewhere, herein).

BUSINESS MICROCOMPUTERS: FRAUD OR REALITY?

Rodnay Zaks, a well-known lecturer in the micro field, will discuss microcomputers as business systems in his talk entitled, "Business Microcomputers: Fraud or Reality?" He notes that microcomputers have been widely advertised as applicable to small businesses. Zaks comments, "For the first time, hardware is available for less than \$10,000 which is fully capable of providing the functions required for the actual automation of a small business." However, Zaks queries: "Does it *really* provide the capability?" The answer to this question is the basis of his discussion. He will touch on the requirements of business computing, the hardware, the software, and the real advantages of microcomputer systems.

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By Rodnay Zaks, 416 pp, ref C201 \$9.95

USED WORLDWIDE AS UNIVERSITY TEXT. A comprehensive, yet detailed and clear introduction to all aspects of microprocessors. How they work. The ROM, RAM, PIO, UART. How to interconnect. System development.

MICROPROCESSOR INTERFACING TECHNIQUES
By Austin Lesca and Rodnay Zaks, 416 pp, ref C207, \$9.95

ALSO USED WORLDWIDE AS UNIVERSITY TEXT. How to connect to all the usual peripherals, from keyboard to floppy disk, including A/D, displays, standard busses (RS232, S100, IEEE 488) and dynamic RAMs.

PROGRAMMING MICROCOMPUTERS: 6502
By Rodnay Zaks, 250 pp, ref C202, \$9.95

NEW. How to program microprocessors, with 6502 examples: arithmetic, input-output, peripherals. Interrupts. An educational text requiring no prior programming knowledge, yet useful to those wanting to learn about specific programming techniques. Applicable to PET, KIM, VIM, APPLE.

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Conference Session

PERSONAL COMPUTING APPLICATIONS FOR ATTORNEYS & COURT REPORTERS

Douglas W. DuBrul will outline several "Unique Personal Computing Applications for Attorneys & Court Reporters." He will emphasize two applications, computer-aided transcription and key-word indexing in his talk. Some of the problems involved in both of these will be discussed.

COMPUTER SECURITY EXPERT TO SPEAK IN LEGISLATION SECTION

Computer security expert Robert P. Abbott will address the "Section and Panel on Potential Legislation Affecting Computer Owners & Users" at the Faire. Mr. Abbott has been a computer security consultant for law-enforcement, banking, and other industries, and also has extensive experience in biomedical computer applications and in timesharing systems. He is actively engaged in conducting general EDP audits, software audits, and the production of programming tools to aid the EDP auditor.

A PORTABLE COMPILER FOR A PASCAL-LIKE LANGUAGE

"A Portable Compiler for a PASCAL-like Language" will be described by Mark Green. He will treat the problem of program portability. Three solutions to the problem will be presented. As well, a particular piece of portable software developed for the Micro Pascal Compiler will be examined. Construction and implementation of abstract machines will also be discussed.

Conference Session

CHANGING PARADIGMS AND THE COMPUTER

"Changing Paradigms and the Computer" expresses a vision of the future in which our culture will experience "a major paradigm shift." Carl Townsend comments that the Gutenberg Press made the flow of information possible, and now the microcomputer will allow us to automatically control that flow. He notes, "This will cause radical changes in our political, economic, and educational systems as well as changing our concepts of transportation and communication."

What these changes will be, and how we can use our computers as tools to help create the future we want, will be discussed in his presentation.

"CAPTAIN CRUNCH" TO DISCUSS HIS EXPERIENCES ON CAPITOL HILL

John Draper will discuss his experiences in Washington DC with regards to legislation covering computer crimes and abuses. He will offer his adamant opinions on both the bills being considered and the men behind them. He also proposes that a volunteer group be formed to represent the engineers and programmers who will be affected by the potential laws, thereby providing input to the public hearings held by congressional committees.

Conference Session

HOW TO RAISE CAPITAL FOR YOUR BUSINESS

"How To Raise Capital For Your Business" will be discussed by Entrepreneur Don Dible. He recognizes that obtaining capital is one of the largest problems that beset small businesses.

In the talk, he will mention ways to optimize an individual's situation so that it can be used to best advantage. He will comment on trade credit, economizing, barter, do-it-yourself ideas, and more.

CROMEMCO COBOL NOW AVAILABLE

COBOL, the most common language used in business system programming, is now available for Cromemco's Z-80 based microcomputer systems. Cromemco COBOL is based on American National Standard X3.23-1974, so users have access to a large number of programs already written in COBOL.

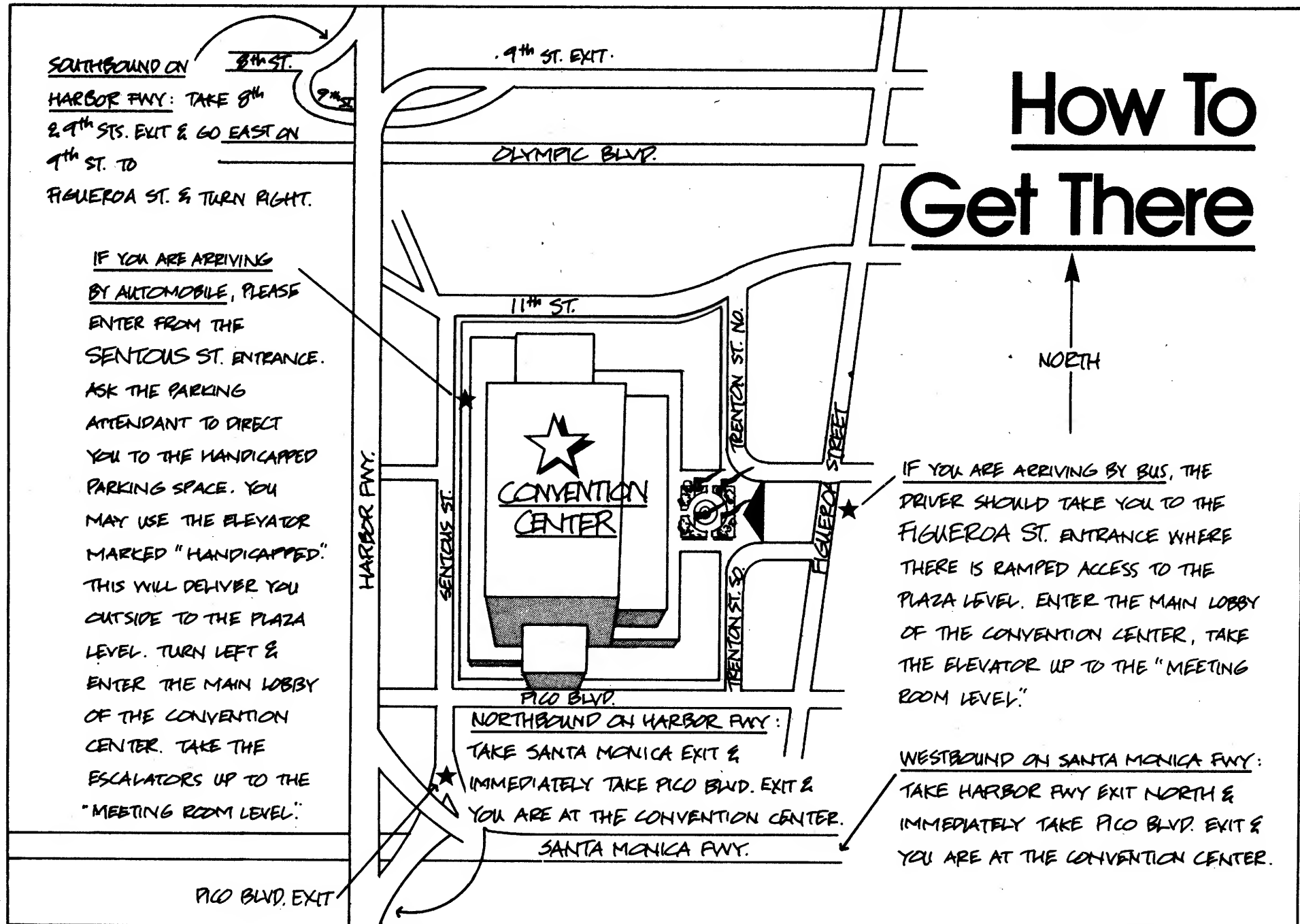
Cromemco COBOL includes all ANSI Level 1 features for the Nucleus and for Sequential, Relative, and Indexed file handling; Table handling; Library; and Inter-program Communication facilities. It also includes the most useful Level 2 options such as the verbs STRING, UNSTRING, COMPUTE, SEARCH and PERFORM; abbreviated and compound conditions; and condition names.

This COBOL supports a data format which permits compact storage of decimal data on diskette. This data format allows numerical data to be packed two digits to the byte so that mass storage requirements are reduced.

A batch style DEBUG technique, designed to get programs running in a minimum of on-line time, is also included.

Cromemco COBOL is available on 5" (Model FDC-S) or 8" (Model FDC-L) IBM-format, floppy diskettes for \$95.

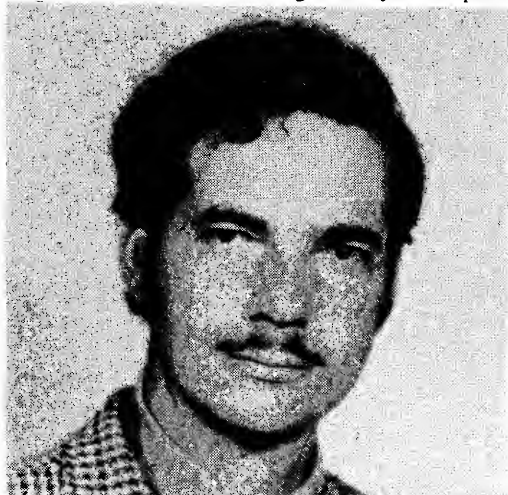
For additional information contact Cromemco, Inc., 280 Bernardo Ave, Mt. View CA 94043; (415) 964-7400.



Conference Session

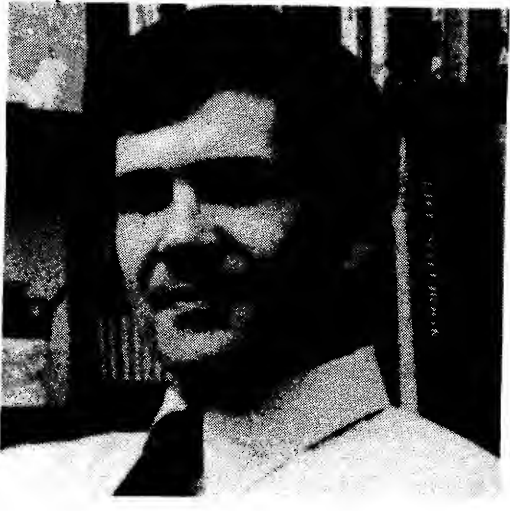
OSBORNE & FLYNN TO SPEAK
ON INDEPENDENT CONSULTING

Dr. Adam Osborne, author of over 50 books and manuals covering many aspects of mini and micro computers, has accepted an invitation to discuss independent consulting at the 3rd West Coast Computer Faire. As an author, he is best known for his all-time best-selling series, *Introduction to Microcomputers*. He is also read widely in magazines such as *Interface Age* and *Mini-Micro Systems*. As a much sought-after conference speaker and industry spokesman, Dr. Osborne has much to say regarding independent consulting. For individuals who have developed microcomputer skills and have been looking for ways to capitalize



on their expertise, Dr. Osborne's comments will prove pointed and timely.

Mike Flynn, a member of Computer Sciences Corporation's Undersea Technology Center staff in San Diego, will chair the section entitled, "Personal Consulting." He is the founder of Personal Systems Consulting, a firm dedicated to supporting independent consultants with hardware, software, maintenance and marketing programs. He will be presenting a paper describing his company's approach to supporting independent consultants.



Conference Session

COMPUTER-AIDED INSTRUCTION
FOR HOME USE

"CAI in the Home Marketplace" will be presented by Silas Warner. He feels that CAI (computer-assisted instruction), as it has appeared in schools and universities, has not been utilized to its full potential. Therefore, with the boom in home computers, Warner feels that the "new place" for CAI will be in the home.

However, he finds problems with the languages that are available on many of the small computers, in that they are unable to adequately process input from the user. Thus, Warner has been extending the use of a language that has already been developed for CAI, PILOT. His talk will explain his use and modifications of PILOT to work on his Apple II computer.

Conference Session

DATABASE APPROACH TO SMALL
BUSINESS SYSTEMS

Dr. Richard D. Hackathorn will discuss a "Database Approach to Small Business Systems." He recognizes that database management systems (DBMS) are common on large-scale computers. However, the recent entry of small scale computers into the marketplace has created a demand for the implementation of database management for them as well.

Hackathorn's talk will present the principles of database management systems and will show how these concepts are "very important to the design and operation of small business systems." He will also explain how database management systems have become cost effective for their usage in small business systems. He will conclude with recommendations to systems designers.

Conference Session

COMPUTER-CONTROLLED SOUND
EDITING SYSTEM

William R. Deitrick of Mini-Micro Systems, Inc., will detail a sound editing system in his Faire talk. He will explain what the original design plans were for the system, the problems and failures encountered in searching for "off the shelf" electronic equipment to perform the objectives, and finally, how the system was made to work using hardware that was specially designed for the task.

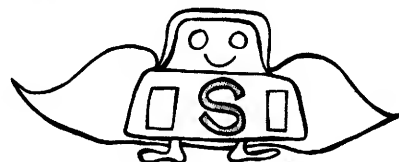
Originally, the system was expected to be completely digital with a sound effects library digitized and stored on rapid-access mass storage (disk drives). Deitrick has noted that this would have been feasible if the sound effects could have been digitized and compressed using software to minimize the amount of storage required. However, the hardware and software to achieve data compression/decompression not only did not exist, but does not today and probably won't in the near future! However, Deitrick notes, subsequent solutions to the problem were more efficient. Hardware was designed and developed to allow real time operation, and software was created to permit the editor to use the machine as a tool.

Conference Session

PRODUCT DISTRIBUTION METHODS
TO BE DISCUSSED

Don Dible will investigate "How To Get Distribution For Your Product." He feels that one of the large problems of small businesses is getting adequate distribution for the product being manufactured. Therefore, Dible details several methods that he finds helpful. He will also comment on direct selling and direct mail marketing.

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Conference Session

IEEE PROPOSED FLOATING POINT STANDARD FOR MICROS TO BE PRESENTED

Tom Pittman and Jerry Coonen will be discussing the work now in progress under the auspices of the IEEE (Institute of Electronics and Electrical Engineers) Computer Society in defining a standard for floating point number storage and processing. Tom's talk will provide an overview: "The Proposed IEEE CS Floating Point Standard: What It Means to Hobbyists, Engineers, & Businesses." Jerry Coonen is planning to give an associated presentation, filling in many of the fine points. Coonen, incidentally, is working closely with W. Kahan, possibly one of the best known numerical analysts in the world — a professor in the EE/CS Department at the University of California in Berkeley. (Professor Kahan is purported to be the person who, after the IBM 360 systems were in production and installed in the field, persuaded IBM to go out and replace all of their floating point hardware, . . . 'cause it jus' wasn't right.)

Conference Session

TO ROUND THINGS OUT. . .

David M. Collison will present a talk at the Faire entitled "How to Avoid Rounding Errors." Noting that small computers are especially prone to rounding errors, he will describe several programming techniques that avoid them, and will give several examples.

Conference Session

THE MICROCOMPUTER AS ANTIDOTE: MEDICAL DATABASE APPLICATIONS IN THE HOME & OFFICE

"The Microcomputer as Antidote" will explain two projects currently in progress that utilize the rapid text-indexing capability of the personal computer in medical environments.

Dr. Roger Littge will outline both projects which involve the use of medical information storage and retrieval. One of them concerns rapid determination of steps to take in the case of an accidental poisoning. The second project scans medical journal abstracts which are indexed by key words.

Dr. Littge comments on systems of poison antidote information retrieval suitable for the home as well as for doctor's offices and hospital emergency rooms. The differences between the two, and how they are designed with the users in mind, are noted.

The second project takes advantage of a medical journal abstracting service which currently generates and distributes "concise, indexed and coded abstracts in the U.S." Berkeley Medical Data Associates, of which the author is a member, is working with the abstract firm to produce their abstracts in computer-readable form.

LINE 776-L. A. AIRPORT-DOWNTOWN L. A.-CONVENTION CENTER-WILSHIRE DISTRICT

ONE-WAY FARE: \$2.50-CHILDREN UNDER 5 FREE.

Weekdays, Saturdays, Sundays and Holidays

L.A. Airport to Downtown L.A. and Wilshire District													Downtown L.A. and Wilshire District to L.A. Airport																	
ROUTE	LA AIRPORT	BONAVENTURE HOTEL	HILTON HOTEL	BILTMORE HOTEL	MAYFLOWER HOTEL	NEW OTANI HOTEL	RIDGEMOUNT STATION	SHERATON WEST	CHANCELLOR HOTEL	AMBASSADOR HOTEL	WILSHIRE HYATT HOUSE	HYATT REGENCY	ROUTE	LA AIRPORT	BONAVENTURE HOTEL	HILTON HOTEL	BILTMORE HOTEL	MAYFLOWER HOTEL	NEW OTANI HOTEL	RIDGEMOUNT STATION	SHERATON WEST	CHANCELLOR HOTEL	AMBASSADOR HOTEL	WILSHIRE HYATT HOUSE	HYATT REGENCY					
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User Group Section

ALPHA MICRO USERS SOCIETY TO HOLD 1st ANNUAL CONVENTION DURING THIRD FAIRE

“The Alpha Micro Users Society will hold its First Annual Convention in conjunction with the 3rd West Coast Computer Faire in Los Angeles.

The initial AMUS meeting at the 2nd WCCF was attended by about 100 enthusiasts who heard Dick Wilcox talk about Alpha MicroSystems, Inc. and answer their questions.

Since then AMUS has published monthly newsletters, answered multitudes of phone calls, collected utilities and games for distribution to members, published information about available software and generally attempted to create a communications capability among the members.

The membership now stands at 165 (as of Sept. 6).

November 1st and 2nd, are the dates to remember if you want personal training on the Alpha Micro. We will be conducting classes on System Architecture, all AMOS programs, BASIC, PASCAL, writing programs, configuring systems and EDIT, TXTFMT, VUE.

On November 3rd and 4th, we will provide time and space for meetings and discussions. Already defined subjects are:

1. Board of Directors meeting
2. Communications MH
3. AMUS Communications Network
4. Cross licensing agreements
5. Word Processing
6. Special Interest Groups – Medical, Educational

The annual meeting will hopefully be scheduled on Saturday afternoon as the last regularly scheduled Faire session of the day. The meeting will include voting on proposed recommendations for changes and enhancements to the Alpha Micro System and discussion with Dick Wilcox or Bob Hitchcock.”

See you all there,
Jim Taylor, President
Alpha Micro Users Society
Box 1723
Boulder CO 80306
(303)449-8847

Conference Session

MICROCOMPUTERS IN THE HIGH SCHOOL – EXPANDING OUR AUDIENCE

William J. Wagner will provide an account of one school’s approach to building a computer education program that meets the varying needs of students throughout the school. Wagner notes that microcomputers offer the opportunity to bring computer education to more than just the gifted few. Students vary in their interest and aptitude, and he feels that computers can assist in offering useful experiences at appropriate levels and for varying time periods.

At the 2nd Faire in San Jose last March, a lengthy question and answer period followed a similar presentation. A San Francisco Bay area group calling itself “Computer-Using Educators” was born that day and will be having its fourth meeting in January, 1979. Perhaps his presentation in Los Angeles will spark the formation of a similar group in Southern California.

Conference Session

TECHNOLOGY ASSESSMENT OF THE PERSONAL COMPUTER: AN OVERVIEW

Dr. Jack Nilles, from the University of Southern California’s Office of Interdisciplinary Programs, will present a summary of an on-going research project at USC. The study seeks to forecast the long-term trends of personal computer technology and applications. It will assess the broad scale societal impacts of the technology, examine the public policy implications of these impacts, and formulate and analyze policy alternatives aimed at increasing the beneficial societal effects and minimizing harmful impacts. The overview includes a brief discussion of the techniques by which the assessment is being performed.

FAIRE ADMISSION BADGES TO BE AVAILABLE THROUGH COMPUTER STORES & ELECTRONICS RETAILERS

Those planning on attending the 3rd Computer Faire, being held in the Los Angeles Convention Center November 3-5, will be able to obtain preregistration forms and admission badges, purchasing them through most of the local computer retailers and electronics distributors. The registration fee will be \$6 and will be good for all three days of the Faire. This is the same fee as will be charged at the Convention Center during the convention

The advantage of obtaining admission badges in advance is that such plan-headers will be able to waltz right past those who are standing in registration lines at the Faire. It also gives the opportunity to look around the local computer store -- often a fascinating adventure for those addicted to technological goodies.

The next issue of the *Gazette* will list the names and addresses of many of the retailers carrying Faire prereg materials and badges. In the meantime, contact your local retailer for details.

EX “PHONE PHREAK” TO BE PART OF LEGISLATION PANEL

John Draper, formerly known as “Captain Crunch” of the phone phreaks, will speak at the Faire during the section and panel on “Potential Legislation Affecting Computer Owners and Users”—if he is out of jail in time, which is likely.

Draper will discuss his experience on Capitol Hill, where he feels that engineers, programmers, and other technical people have almost no presence or influence in the design of legislation.

John Draper is currently in jail in Pennsylvania after pleading guilty to possession of a “mischievous device” — an Apple II with phone board and programs to dial calls. Apparently he used it openly from his home phone. According to *The Washington Post*, the prosecutor spent nearly a year preparing the case against him.

John Draper may need your help to get out of jail on schedule. To keep in touch, write to his attorney, Ron Barkin, Box 4399, Berkeley CA 94704.

Editors Note: This information is being published only after we obtained explicit permission to do so.

Conference Session

SPEAKING OF SPEAKING. . .

Jeff Wise has attended a number of conferences, both professional and amateur, and has noted with increasing dismay that all too many speakers — while being extremely competent, technically — simply don’t know how to speak; how to adequately communicate their knowledge to their listeners. Thus, he will be speaking on speaking! —presenting a discussion of how to give better talks in technical conferences. Jeff, a senior in Computer Science at Chico State University, will include comments on the different attributes of the voice, techniques of delivery, how speeches may best be organized, different methods of style, visual aids, . . . and how to tell if your audience is bored!

LOS ANGELES BUS PASSES AVAILABLE BY MAIL

Public transportation in Los Angeles is operated by the RTD, which is now accepting mail orders for Airport Express bus tickets and Tourist Passes from those planning to attend the Computer Faire in Los Angeles, November 3, 4, and 5.

RTD’s Tourist Pass provides unlimited riding on all RTD bus lines, (except the Airport Express). A 3-day pass is \$3, 5-day pass \$5, 7-day pass \$7 and a 10-day pass \$10. RTD buses stop at the Convention Center where the Faire will be held.

The Tourist Pass also gives the bearer a 50 cent discount off the regular one-way \$3.50 ticket for the Airport Express. The Airport Express operates between Los Angeles International Airport (LAX) and most of Los Angeles’ major hotels. The fare is a considerable savings over the cost of a taxi from LAX to downtown Los Angeles, which averages about \$12.

Use the handy form below to place your order NOW!

RTD MAIL ORDER FORM

TOURIST PASS AND AIRPORT EXPRESS TICKETS

Quantity		Amt. Remitted
_____	Tourist Pass — 3 Days @ \$3.00	\$ _____
_____	Tourist Pass — 5 Days @ \$5.00	\$ _____
_____	Airport Express Discount Ticket (with Tourist Pass purchase)	— @ \$3.00 \$ _____
_____	Airport Express Ticket (without Tourist Pass purchase)	— @ \$3.50 \$ _____

PLEASE PRINT

<input type="checkbox"/> Personal Check	<input type="checkbox"/> BankAmericard No.	_____
<input type="checkbox"/> Cashier’s Check	<input type="checkbox"/> Master Charge No.	_____
<input type="checkbox"/> Money Order	<input type="checkbox"/> Visa Card No.	_____

Make Check or Money Order payable to: S.C.R.T.D. (Do not send cash).

PLEASE PRINT

Name _____

Address _____

City _____ State _____ Zip _____

Mail to: SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
Marketing Department
425 S. Main Street
Los Angeles, Ca. 90013

LINE 873 Service from L.A. Airport to Santa Monica

- SURF RIDER INN • GEORGIAN HOTEL
- ROYAL INN • MIRAMAR HOTEL
- HOLIDAY INN • HUNTLEY HOUSE

Board RTD Minibus Shuttle at any designated RTD Minibus stop. Pay 45¢ fare and obtain a free transfer good for a connecting trip on Line 873 from 98th St. and Vicksburg (just outside the airport) to Santa Monica.

Schedules—Monday through Friday

Every hour from 7:00 a.m. to 6:00 p.m. 10 minutes after the hour from 7:10 p.m. to 11:10 p.m.

Saturdays, Sundays and Holidays

30 minutes after the hour from 7:30 a.m. to 7:30 p.m. 15 minutes after the hour from 8:15 p.m. to 11:15 p.m.

RTD Airport Express Service Information:

24 Hour Information, English-Español	
Los Angeles Airport	973-1222
Downtown	626-4455
Beverly Hills-Century City	273-0910
Hollywood	626-4455
Wilshire	626-4455
Santa Monica	781-5890
San Fernando Valley	781-5890
San Gabriel Valley	
(Alhambra, El Monte, West Covina)	443-1307
Inland Empire (Pomona, Montclair, Ontario)	620-1871
Inland Empire (Fontana, Riverside, San Bernardino, Norton, Redlands)	824-1100

Save 50%

Buy a 20-Ride RTD Airport Express Commuter Ticket Card—good for one month from date of sale. Commuter Ticket Cards are available at the Airport Ticket and Information Booths, RTD Ticket Agencies, or call the RTD for mail order information

Time schedules are approximate
Service subject to change without notice

Southern California Rapid Transit District
425 S. Main St
Los Angeles, Calif. 90013

Effective July 1, 1978

THIRD

WEST COAST COMPUTER FAIRE

November 3, 4, 5, 1978
9am-6pm 9am-6pm Noon-5pm

APPLICATION FOR HOTEL RESERVATIONS

Please telephone or send your reservations **directly** to the hotel of your choice, and request the special **Computer Faire** rate. (Special rates have been arranged with the hotels listed in the chart below.) These hotels are within a few blocks of the Los Angeles Convention Center. We suggest that you complete your reservations soon in order to obtain reservations of your choice.

Do NOT send reservations to Computer Faire

Please confirm all arrangements and rates in advance with your hotel to assure no misunderstandings regarding rates, and arrival/departure schedules.

Please complete the forms below if you mail your reservation to the hotel.

Date of Arrival _____

Hour _____

Date of departure _____

Mode of travel _____

Accommodations:

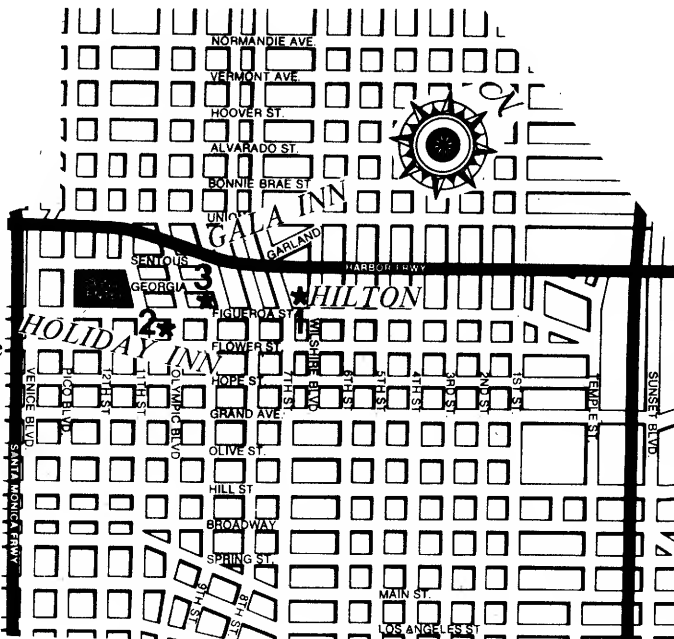
Single _____ Double _____ () 1 Bed

() 2 Bed

Other _____

Occupied by:

(bracket all names sharing same room)



HOTEL	Single	Doubles/Twins	Suite
Headquarters Hotel			
1 Los Angeles Hilton	\$34	\$44	\$115+
930 Wilshire Blvd	\$37	\$47	
Los Angeles 90017	\$40	\$50	
(213) 629-4321			
2 Holiday Inn of L.A. Convention Center			
1020 S. Figueroa St	\$29	\$35	—
Los Angeles 90015			
(213) 748-1291			
3 Gala Inn Towne Motor Hotel			
925 S. Figueroa St	\$24	\$26	—
Los Angeles 90015			
(213) 628-2222			

NOTE: A deposit may be required by the hotel.

Send Confirmation to:

(Please Print)

Name _____

Address _____

City _____

State _____ Zip _____

Telephone () _____

A QUICK LOOK AT SAN FRANCISCO/LOS ANGELES FLIGHTS

***All flights are to and from San Francisco & Los Angeles International Airports unless otherwise noted.
Flying time is approximately one hour.

AIRLINE	FARE	DESCRIPTIONS & RESTRICTIONS	SFO/LAX FLIGHT TIMES	LAX/SFO FLIGHT TIMES
TWA	\$19 one way	Confirmed No advance purchase required	12:15am 8:20am 11:05pm	12:20am 7:05pm 12:40am 9:00pm 10:50am 11:20pm 2:55pm
PAN AM	\$13 one way \$19 one way	Stand-by Confirmed No advance purchase required	7:30am 10:40am 8:30pm Sat. only	8:15am Sun. only 3:30pm 6:40pm
UNITED	\$19.40 one way \$28.10 one way	Stand-by Confirmed No advance purchase required	7:00am thru 10:00pm Approx. every hour	8:00am thru 12:50am Approx. every hour
WESTERN	\$19 one way \$26 round trip	Must be confirmed 7 days prior to departure "Prop 13"—Reserve & purchase 7 days prior to departure & stay over 1 Sat night (Effective Sep. 6)	1:00am 9:25pm 3:10am 9:15am 9:45am 10:10am 2:10pm 3:10pm 7:25pm	12:25am 8:15pm 7:55am 11:40pm 8:45am 10:00am 12:30pm 3:00pm 4:50pm 7:20pm
BRANIFF	\$19 one way \$28.10 one way	Stand-by Confirmed No advance purchase required	5:00pm Mon. & Sat. 8:50pm Thu. & Sat. 5:50pm W, F, & Sun	7:30am Mon. & Sat. 8:15am W, F, & Sun. 5:35pm Thu. & Sat.
DELTA	\$13 one way \$13 one way	Night Coach Stand-by No advance purchase required	9:20pm F & Sat 7:15am	1:18am F & Sat 4:10pm
PSA	\$20 one way \$20 one way \$32	"Discount Fare" Must be confirmed 5 days prior to departure. ONLY on flights between 10:01am & 2:59pm Mon—Thurs "Midnight Flyer" Stand-by Confirmed No advance purchase required	11:00am 12:00 N (Additional 1:00pm flights to 2:00pm Burbank) 12:20am, except Sun & Mon <i>All flights, approximately every hour</i>	11:00am 12:00 N 1:00pm 2:00pm 12:05am, except Sun. & Mon.
AIR WEST	\$28.10 one way	Confirmed No advance purchase required	6:35am 6:25pm 9:50am 7:35pm 2:45pm	8:00am 9:30am 3:55pm 10:40am 6:25pm

This information appears, courtesy of Sequoia Travel, located in Tresidder Union, Stanford University, Stanford CA 94305 (415)323-9401.

PLEASE NOTE: prices and times are subject to change without notice. Please call the airline for current information.

Conference Session

LEGAL ASPECTS OF THE COMPUTER INDUSTRY TO BE DETAILED

The Law Offices of patent attorneys Phillips, Moore, Weissenberger, Lempio, & Majestic will provide a panel of speakers to the 3rd West Coast Computer Faire at the Los Angeles Convention Center. Four attorneys will speak on the panel moderated by attorney Hugh Finley.

Martin Fleisler will discuss the most recent decision of the U.S. Supreme Court on the software patentability question, regarding the patent status of an algorithm. He will also discuss basic principles of patent law as they relate to protection of software. The title of his talk will be "Patentability of Computer Software."

Hübert E. Dubb will speak on "Trademarks and Service Marks as Modern Goodwill and as Franchisable Properties." The requirements for selecting a good mark, properly controlling products and/or services supplied under that mark, and enforcing the mark against infringes will be discussed.

Neil Boorstyn will discuss "Copyright and Computers." His talk will include a discussion of the practical, legal, and business aspects of copyrighting computer programs, and the nature and scope of copyright protection. He will also cover the effects of the new law, registration and deposit requirements, works for hire, and protection of printed materials (e.g., brochures, manuals, etc.).

Sheldon R. Meyer will discuss "Infringement and Licensing of Proprietary Property." He will treat the exploitation of proprietary property rights (and patents) through licensing and assignment, and enforcement of such rights through infringement litigation.

Hugh Finley will moderate the section and will comment on topics not covered by the four speakers, such as trade secrets, foreign rights, and the New Patent Cooperation Treaty pertaining to international protection.

Conference Session

MINNESOTA EDUCATION CONSORTIUM LOOKS AT MICROS

In December 1977, the Minnesota Educational Computing Consortium (MECC) Board of Directors established the Microcomputer Task Force. Its purpose is to advise its Executive Director and member school systems on matters related to microcomputers for instructional computing services.

The objectives of this Task Force are: to determine strengths and weaknesses of microcomputer utilization in instructional computing modes and environments and, to prepare a position statement regarding large scale acquisition and utilization of microcomputers in member school districts.

Findings of the Task Force will be presented during the Faire by Dr. Kenneth Brumbaugh. He will discuss such topics as software, system hardware analysis, and purchase recommendations.

AVOID LONG LINES — FAIRE PREREG NOW AVAILABLE

Those wishing to "jus' walk right in" to the 3rd Computer Faire —rather than waiting in on-site registration lines — may obtain complete preregistration materials, including the door-pass badges, prior to the Faire days. They may be obtained from many of the local computer stores, including those listed below. Additionally, a preregistration table will be open at the Los Angeles Convention Center from 1pm-5pm on the day before the Faire (Thursday, Nov. 2nd).

Mission Control
2008 Wilshire Blvd.
Santa Monica, CA 90403
213-829-5137

Hobby World Electronics
19355 Business Center Dr. No. 6
Northridge, CA 91324
213-886-9200

Rainbow Computing, Inc.
10723 White Oak Ave.
Granada Hills, CA 91344
213-360-2171

Computerland of San Diego
4233 Convo St.
San Diego CA 92111
714-560-9912

Byte of Palo Alto
2233 El Camino Real
Palo Alto CA 94306
415-327-8080

OLD PROS. . .

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1947 to 1954. This Conference Section was organized by Professor Henry Tropp, who was the Principal Investigator for the multi-year Computer History Project jointly sponsored by the Smithsonian Institution and AFIPS.

The speakers will include Paul Armer, one of the founders of the Association for Computing Machinery and currently heading up the Charles Babbage Institute, Fred Gruenberger, and Professor Tropp — and is likely to include several other notables (if they can make it back from another meeting in time for the Faire). Mr. Gruenberger will connect his reminiscences of those early days to the current maze of micros in a talk he has titled, “Must Personal Computing Repeat *Every* Mistake Ever Made?” Professor Tropp will Chair the meeting and offer a variety of stories of the “ol’ days” gleaned from his own, in-depth interviews with many of the founders of modern computing — those interviews conducted while he was working on the Smithsonian/AFIPS History Project.

GRIMES & WARREN. . .

continued from front page

State University’s Computer Science Department concerning the design of user interfaces.

Dr. Grimes was Manager of the Tektronix group that produced the operating system and BASIC language translator for the 4051. He is well known among computer professionals, at least partially due to having served as the Technical Editor of *Computer* magazine, 1976-1978. He has Chaired his local IEEE Computer Society Chapter, and is a member of the ACM, IEEE, and Sigma Xi — a multidisciplinary research society. He is also a member of the World Future Society. He holds a Bachelor’s, Master’s, and Ph.D. degrees in Electrical Engineering.

Jim C. Warren, Jr. will be the second keynote speaker, also addressing the Saturday evening banquet. He will offer comments regarding, “Intelligent Machines for Everyone: Now & Soon.” Basing his projections on the past and present, Warren will propose a variety of probable events we will see in the next two to five years. Some will be mundane; others that he will predict are likely to have a major impact on the entire culture and society — impacts that he proposes will be, for the most part, highly desirable.

Mr. Warren is probably best known in the personal computing community as the first Editor of *Dr. Dobb’s Journal*, and then as the originator of the West Coast Computer Faires. He is currently the Director of the Digicast Project — a project to create an “electronic newspaper” system in 1979, based on digital broadcasting over FM bands — and, is Editor of the *Intelligent Machines Journal* — a new, biweekly newspaper explicitly designed to provide fast-turnaround news and dialogue for those interested in low-cost computing.

Mr. Warren has been a computer consultant for most of a dozen years, specializing in small computers. Prior to that, he spent a decade teaching college, university, and high school mathematics. He has Chaired local chapters of the ACM, SIGMICRO, SIGPLAN, and the Council of Teachers of Mathematics, and was the General Secretary of the Midpeninsula [San Francisco] Free University in the late ‘60’s.

Holding four degrees, Mr. Warren has Bachelor’s and Master’s degrees in Mathematics, and other Master’s degrees in Medical Information Science (UCSF) and Electrical Engineering/Computer Engineering (Stanford). He currently has all work except his dissertation completed for his Ph.D. at Stanford.

The Faire banquet will be held in the Los Angeles Convention Center on Saturday evening, November 4th. The Banquet Hall will open at 6:30pm, for which there will be a no-host bar. Banqueteers will be served at 7:30pm — “November turkey with accoutrements.” Seating in the back and along the sides of the Hall will be available for those wishing to hear the keynote speakers, but not desiring to join in the banquet. That seating will open at 8:30pm, with the speakers beginning at 8:45pm. There will be an opportunity for questions and discussion, following the formal talks by the speakers.

Banquet and “listener” seating will be somewhat limited, and will be available on a first-come, first-served basis. Tickets for the banquet and for the post-banquet listener seating will be available at a booth in the front of the Exhibit Hall, all day Friday and Saturday, as well as from 1pm to 5pm on Thursday — the day before the Faire. The banquet will be \$15. Listener seating will be \$5.

The banquets at the First and Second Faires provided a unique highlight to each weekend’s events. Their reception was enthusiastic — perhaps best illustrated by the fact that the post-speech discussion sessions continued for several hours with well over half the attendees staying all the way to the end, and actively participating in the discussions. It appears certain that the banquet for this first Computer Faire to be held in Los Angeles will be similarly well received.

OVER 120 EXHIBITORS
HAVE ALREADY TAKEN OVER 170
SPACES IN LOS ANGELES FAIRE

As of the writing of this article, over 170 exhibit spaces have already been rented in the Exposition Hall of the 3rd West Coast Computer Faire . . . and the Faire is still a month away. In comparison, the First Faire — held in San Francisco in April, 1977, drawing almost 13,000 computer enthusiasts — had only 205 spaces taken *by Faire time*. And, the Second Faire in San Jose last March — which drew over 14,000 — shoehorned in a total of 197 exhibits, and had over 30 exhibitors who requested space after all spaced had been taken.

The following is a list of committed exhibitors as of October 2nd:

- A.B.S. Business Machines
- Agile Corporation
- AHH Shirt
- Alpha Micro
- Altos Computer Systems
- Applied Economic Analysis
- Artec Electronics Inc
- Kathryn Atwood Enterprises
- Base 2 Inc.
- Business Resource Service
- BYTE Publications
- C.P.S. Inc.
- California Digital
- Career Research Systems Inc.
- Cherry Electrical Products Corp.
- CLOAD Magazine
- Compumax Associates
- Computalker Consultants
- Computer Headware
- Computer Interface Technology
- The Computer Room — San Jose
- Computer Sciences Corp.
- The Computer Store — Santa Monica
- COMPUTER TEXTile
- Creative Computing
- DAIR Computer Systems
- Delta Products S-44
- Digital Equipment Corp.
- Digital Research
- dilithium/Matrix Publishers
- Electronic Systems
- Electronics Warehouse Inc.
- Entrepreneur Press
- Forth Interest Group
- GIMIX Inc.
- GRI Computer Corp
- Hayden Book Co. Inc.
- Heathkit Electronic Centers—Units of Schlumberger Products Corp.
- Hobby World Electronics
- Houston Instrument
- HUH Electronics
- IBM Corporation
- Image Resource
- Information Terminals Corp.
- Integrated Circuits, Unlimited
- Interface Age Magazine
- Jade Computer Products Inc.
- Kilobaud
- Malibu Design Group Inc.
- Marinchip Systems
- MECA
- Micro Computer Devices
- Micro Technology Unlimited
- Micro-Ap
- MicroAge
- Microbiz
- Microdasys
- Micropolis Corp.
- MicroPro International
- Microsette Co.
- Microtronix Inc.
- Midwest Scientific Inst.
- 3M Company — Data Recording Products
- MVT Microcomputer Systems, Inc.
- NCE/CompuMart, Inc.
- The Net Works
- Newtech Computer Systems, Inc.
- North Star Computers
- Occupational Computing Company
- Oliver Advanced Engineering
- Omnisystems Div., Omni Computer Corp.
- OpAmp Technical Bookstore
- Osborne & Associates
- Pacific Office Systems
- Page Digital Electronics
- People’s Computer Company
- Personal Computing Magazine
- Personal Software
- Personal Systems Consulting
- Problem Solver Systems, Inc.
- PROGRAMMA Consultants
- Quality Software
- Quest Electronics
- Ramsey Electronics
- Rockwell Microelectronic Devices
- SEMIONICS
- Smoke Signal Broadcasting
- Softape
- The Software Exchange
- The Software Works, Inc.
- Solid State Music
- Southern California Computer Dealer Association
- Structured Systems Group, Inc.
- Summagraphics Corp.
- Sybex, Inc.
- Szerlip Enterprises
- Technical Systems Consultants, Inc.

LEGISLATION AFFECTING. . .

continued from front page

Metcalf, Percy, and Thurmond. The Senate is not expected to complete action on it until next year. Then the bill would go to the House.

The Faire’s Conference Section and Panel on “Potential Legislation Affecting Computer Owners and Users” will present talks and panel discussion with audience questions and comments concerning the Ribicoff Bill and other major pending legislation (such as the Communications Act of 1978, which is a complete re-write of the current Federal communications law that dates back to 1934). Other interests include privacy legislation, the new FCC crackdown on RF modulators, NSA secrecy orders against privately-developed cryptographic devices and algorithms, and foreign laws regulating trans-border data flow, including customs problems in distribution of software.

Confirmed panelists so far include computer law expert Susan Nycum, computer security expert Robert Abbott, Library of Congress Information Sciences Specialist Robert L. Chartrand, cryptology expert Ralph Merkle of Stanford, John Taber, who has closely studied the Ribicoff Bill, Gordon French, a founder of the Homebrew Computer Club, and “Captain Crunch” John Draper. Because of the number of speakers, there will be more than one Section. They will be on different days. The sessions will be chaired by John James, who is organizing the panel.

Conference Session

RF COMMUNICATIONS
& MICROS

“The Microprocessor in RF Communications. Some Useful Utility Programs for the 1802 Microprocessor” will be a talk presented by John P. Rohner at the Computer Faire in Los Angeles. The talk will include explanations of a disassembler, call, return, and cassette read and write programs.

33% LOWER FEES
FOR 3rd COMPUTER FAIRE

The registration fee for the Third West Coast Computer Faire -- covering admission to all exhibits and the Faire Conference Program for all three days of the November 3-5 Computer Faire-- will be \$6. This is a significant reduction from the registration charge of \$8-\$9 for the First and Second Faires.

This reduction was the Faire’s response to the maturing of the low-cost computer marketplace, and to feedback from attendees at previous Faires and from exhibitors. In the beginning, when the industry was struggling through its infancy, it was appropriate to equally distribute the costs of a Computer Faire between the struggling companies and the struggling consumers. Now, however, the marketplace has matured, and the companies deriving the profit from that marketplace are better able to carry a larger portion of the financial burden of conducting such major conferences and expositions that are of explicit benefit to them. In fact, several of the companies have pointed this out, and proposed that registration fees be reduced, understanding that their exhibition fees would be somewhat increased.

Registration forms and badges will be available at the L.A. Convention Center for \$6, throughout show hours, Friday through Sunday, November 3-5. They will also be available through many retail computer stores and electronics distributors, allowing attendees to obtain their admission badges early and jus’ walk right in -- dodging the registration lines on-site, during the Faire show days. Contact your local computer or electronics store for further information. The next issue of the *Gazette* will carry a listing of many of the stores offering such preregistrations.

- TELPAR, Inc.
- Time-Life Books
- TRS-80 Computing
- Vector Graphics, Inc.
- Video Brain Computer Co.
- Votrax — JHM Marketing Assoc.
- Waterborne Environmental Labs
- WEATHERFORD
- American Word Processing Co.
- Circle Enterprises
- Connecticut Micro Computer
- Convenience Living Systems
- Escon Products
- Foundation for Computer Intelligence
- Hawk-Eye Computer Portraits
- Madhatter
- Micro-Term Inc.
- Microproducts
- Fred Pood & Associates
- Radio Shack
- RCA
- San Diego Computer Society
- Southwest Technical Products Corp.
- Zeta Systems Canada Ltd.

TWO YEARS BEFORE THE MASTHEAD or
WRITE THE TEXT EDITOR, THEN THE TEXT or
HOW THE COMPUTER MADE ME A WRITER

Jef Raskin, a well known writer in the personal computing community, will present an account of "the intimate interaction between a human being and his personal computers" at the 3rd West Coast Computer Faire. He will give a bit of history, both of himself and of computers, and will explain why "it would be more devastating to my life style and goals to lose the computer than it would be to lose my car, my telephone, my house, or my electronic calculator."

FLOPPY DISK RECORDING
TECHNIQUES COMPARED

Jefferson H. Harman comments, "In man's continuing search for more storage for less money, the computer system designer is going to double density codes on floppy disks. The use of these codes doubles the capacity of the floppy disk, almost for free. However, all methods are more susceptible to noise and density effects than the single density codes."

Harman's talk, "Double Density Recording on Floppy Disks: A Comparison of Techniques" will compare three commonly used double density codes: MFM, M²FM, and GCR. The reasons for these codes, the relative strengths and weaknesses of the codes, and write precompensation will be discussed.

MAJOR NSF GRANT SUPPORTS STUDY
OF FUTURE OF PERSONAL COMPUTERS

The University of Southern California is conducting a study of the future growth and applications of personal computers. The objectives of the study are to analyze present technological and market trends, forecast major developments and trends over the next ten to twenty years, assess the potential benefits and harmful effects of applications of personal computers, and analyze public policy options as they relate to increasing benefits and minimizing harmful effects. Part of the study involves finding out what types of people buy personal computers, what kinds of devices they buy, and their uses for them. Readers of the *Gazette* are invited to write to the Director of the research team, Dr. Jack M. Nilles, with answers to the following questions:

First, regarding the hardware you own or plan to own: What was the first personal computer you ever bought? What year did you buy it? Did you build it yourself? Did you need help? What influenced you to buy your first computer? Have you purchased any other personal computers since your first? If so, what and when? What personal computer do you plan to buy in the future? What peripheral devices did you buy with your first computer, which do you own now, and which do you expect to buy in the future? About how much did you spend at the time of your first investment in a personal computer? How large is your present investment in personal computers? Was any portion of the cost of your equipment paid for by anyone other than yourself? If so, by whom? Have you been able to deduct your personal computer from your income tax as a business expense?

As regards uses of the personal computer: What uses do you make of your personal computer for business purposes? Are these uses as the main computer for a small business and/or profession, as a personal device that accesses a large computer, or some other use? Please explain. Do you do your own business programming? If so, in what languages? Please list the business applications packages you use. What personal uses do you have for your personal computer? Do you do your own personal programming? If so, in what languages? Please list the personal applications packages that you use. Do you ever use your computer for accessing other computers over communication lines? Would you like to or plan to do so in the future? Does anyone other than yourself use your personal computer (spouse, child, business associate, etc.)? For what purpose? What would you like to be able to do with your personal computer that you can't do now because of the lack of hardware or software availability or price?

Your views about information sources are also solicited: How do you rate your sources of information about personal computers? (on a scale of 0 to 5, with 5 denoting an excellent source, 1 and awful source and 0 meaning no contact or don't know): articles and publications, advertisements and publications, technical books, manufacturers' literature, school courses, computer clubs, trade shows/conferences, job, computer stores, informal personal contacts with users, other. What computer magazines do you read regularly; to which ones do you subscribe? Of what computer related organizations or associations are you a member?

In order to get an estimate of the demographics of the existing and potential personal computer users, the research team will also like to know the following personal information: age, annual income (to the nearest \$5,000), education, your sources of knowledge of computers (e.g., graduate school, undergraduate school, high school, elementary school, military, on-the-job, self-taught), the computer languages you know, your occupation, the size of company in which you work, your occupational history, your use of computers on the job, your hobbies or interests.

Finally, the team would like to hear your own evaluation of personal computing, citing your opinion of the best thing about personal computing, the worst thing and the most important thing, together with any general comments that you might have about the future of personal computing, the potential uses and potential users of personal computers and your ideas of the role of personal computers as a shaper of social ideas and ideals.

All responses to these questions will be used solely for research purposes and will be kept confidential. Responses should be sent to:

Jack M. Nilles
Director
Interdisciplinary Programs
University of Southern California
University Park
Los Angeles CA 90007

MICRO COBOL, GAMES, 5v EPROM's,
& LOTS MORE

The following titles illustrate some of the other talks that will be a part of the 3rd Computer Faire's Conference Program. These were taken from *some* of the papers that were received too late for review in separate *Gazette* articles.

- "Some Experimental Support for Educational Computer Games"
- "Five Volt EPROM's: How To Use Them In Your Microprocessor System"
- "What's New in Computer Games?"
- "COBOL As The Standard Language For Small Business Applications"
- "Innovative Strategies for Marketing Small Business Computer Systems"
- "A Computerized Clinical Support System and Psychological Laboratory"
- "Use of Computer & Biofeedback in Psychological Laboratory for Treatment of Emotional Ills"
- "CIS COBOL Brings Business to Micros"
- "Legal Aspects of Trade Associations in the Retail Microcomputer Industry"

CONFERENCE PROCEEDINGS FROM
FIRST & SECOND COMPUTER FAIRES
STILL AVAILABLE

The Computer Faire still has copies of both issues of its *Conference Proceedings* in stock. When this stock is depleted, these unique reference and tutorial publications will *not* be reprinted.

The *Conference Proceedings of the FIRST West Coast Computer Faire* contains over 300 pages of technical papers and tutorials that were presented at the Faire, held in San Francisco in April, 1977. Though some of these papers have since been reprinted in various magazines and books, most of them remain available only in the *Proceedings*.

The *Conference Proceedings of the SECOND West Coast Computer Faire*, produced in March of this year, contains over 500 pages of state-of-the-art technical papers, tutorials, and discussions relating to low-cost computing.

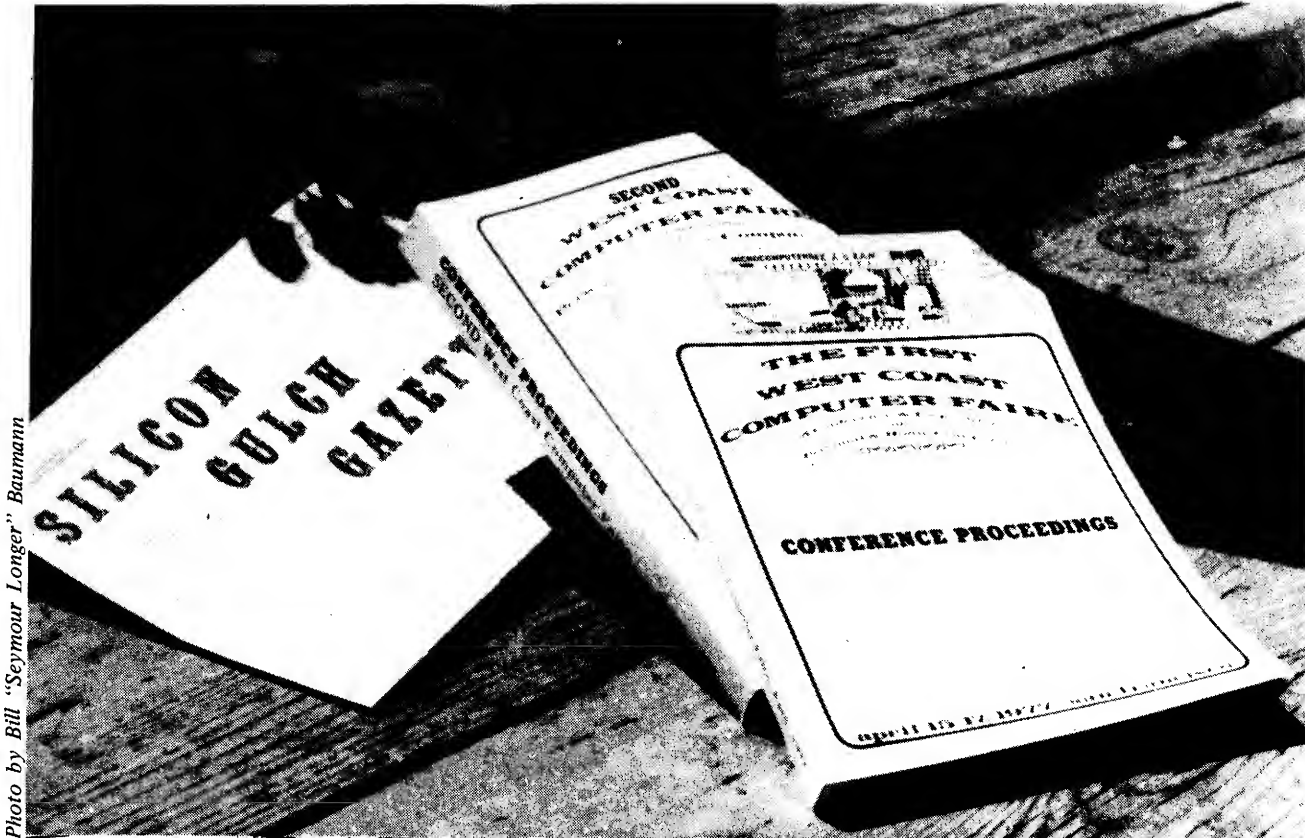


Photo by Bill "Seymour Longer" Baumann

CONFERENCE PROCEEDINGS

Please send _____ copies of the 334-page *Conference Proceedings of the FIRST West Coast Computer Faire*, for which I have enclosed payment of:

- () \$13.00 each, for shipment to my non-California address
- () \$13.72 each, for shipment to my tax-laden California address.

Please send _____ copies of the 505-page *Conference Proceedings of the SECOND West Coast Computer Faire*, for which I have enclosed payment of:

- () \$14.00 each, for shipment to my non-California address
- () \$14.78 each, for shipment to my tax-laden California address.

Please give me the \$2 savings allowed for my ordering *both* the *FIRST* and *SECOND* Computer Faire *Conference Proceedings*. Please send me _____ pairs of copies of both *Proceedings*, for which I have enclosed payment of:

- () \$25 each pair, for shipment to my non-California address
- () \$26.50 each pair, for shipment to my tax-laden California address.

Please make checks payable to: "COMPUTER FAIRE"

Above prices include: cost of the *Proceedings*, handling, UPS or 4th class shipping, and applicable taxes. Both publications are currently in stock. Computer Faire will not reprint *Proceedings*, once the present stock is exhausted. Therefore, a *full* refund will be promptly made if its stock is depleted.

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